

Public Utilities

Volume 56 No. 11



November 24, 1955

THE ELECTRIC UTILITY IN AN EXPANDING ECONOMY

By *Edwin Vennard*

« »

The Northwest Power Pool

By *Edward R. Lucas*

« »

New Censorships for the Relations Man

By *James H. Collins*

« »

What the State Commissioners Are Thinking About

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Three B&W Radiant Reheat Boilers.

9594 PHILIP SPORN

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Four B&W Pressure-Fired Radiant Reheat Boilers with Gas Recirculation and Divided Furnace Construction.

9630 ST. CLAIR

Detroit Edison Co.—
Four B&W Radiant Reheat Boilers with Gas Recirculation and Divided Furnace Construction.

9661 EASTLAKE

The Cleveland Electric Illuminating Co.

9815 ASTORIA

Consolidated Edison Co. of New York, Inc.—
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* Federal Power Commission figures

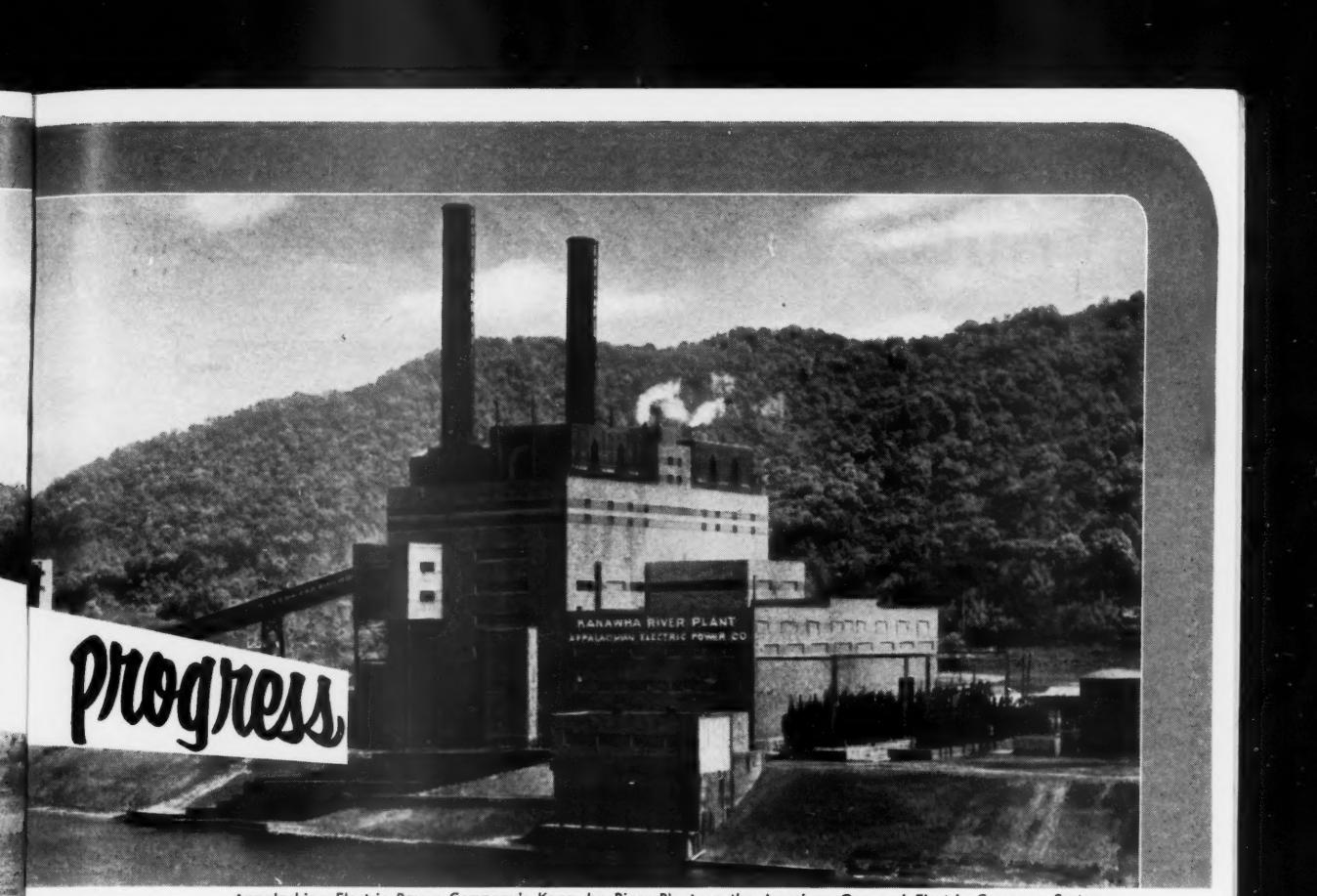


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Progress

Appalachian Electric Power Company's Kanawha River Plant on the American Gas and Electric Company System.

Headed by a record 9170 Btu per net kwhr, these ten plants were the most efficient central stations in the country during 1953, the most recent year for which complete heat rate data are available.

Reflecting the decision of the electric companies to utilize the most recent engineering advances, even during a time of critical capacity expansion, the outstanding performance of these modern plants is a tribute to the foresight of the whole industry. It affords one more indication that the prime interest of this unique team of electric companies and their major suppliers lies in producing still lower-cost kilowatts for a still greater America.

B&W Boilers in many of these stations are designed with such advances as Pressure-Firing, Cyclone Steam Separators, Gas Recirculation and Divided Furnace Construction — features which have contributed substantially toward the outstanding efficiency levels achieved. Also, all steam generating units are equipped with reheaters, a development of major importance in improving plant efficiency.

Pressure-Firing

Among the many advantages of this important engineering advance, as utilized, for example, by the Kanawha River units, is elimination of air infiltration to reduce stack loss and assure greater efficiency. Maintenance is reduced and the use of forced-draft fans alone means easier starting, smoother operation and simpler controls. These are the reasons why more than 100 Pressure-Fired B&W units are now in service or under construction.

Cyclone Steam Separators

Operating inside the steam drum, these simple, stationary devices require no power or maintenance and do not take up building room. The Cyclone Separators assure positive natural circulation at high pressure, and with the steam scrubbers, make it possible to send steam of highest purity to the turbine. Consequently, turbine efficiency is maintained and turbine outages reduced.

Divided Furnace Construction

With this B&W construction, building volume is held to a minimum. Both sides of the furnace division wall are used to absorb heat and thus make it possible to achieve the required furnace cooling surface without excessive increase in building volume.

* * * * *

The record heat rates set by these leading generating stations are closely followed by those of many more plants across the country which are producing low-cost kilowatts at efficiency levels unattainable just a few years ago. And B&W is continuing to devote its energies and its long-accumulated experience to the development of boiler designs that will contribute to still higher levels of steam generating efficiency. The Babcock & Wilcox Company, Boiler Division, 161 East 42nd Street, New York 17, N. Y.



G-696

Pages with the Editors

MONOPOLY is another once honest word (just like "propaganda" or "capitalist") which has become just about ruined for general use by persistent distortion. Critics of regulated public utility industries have used the word in an invidious sense as if calling a business a "monopoly" was somehow condemnation in itself.

ANYONE at all familiar with the concept of utility regulation knows, of course, that utilities are monopolies in only one limited respect—operating rights in a given service area. This has been found by experience to be the best method of preventing wasteful duplication of facilities. And so regulation grew up as a substitute for competition and the so-called "monopoly," limited as it is, is not only perfectly legal but probably the only practical way in which utilities can be operated. Certainly when the government goes into the utility business it sees to it that its service area monopoly is well established and well protected, without any extra benefit of independent regulatory supervision.

BUT in every other respect, aside from the service area, public utility companies today find themselves engaged in plenty of competition with other forms of business. At a recent national telephone convention,



EDWIN VENNARD

one of the program speakers, emphasizing the need for telephone companies to "merchandise" their services, stressed the contest for the consumer's dollar.

EVERY new automobile, new home, every new piece of furniture on the market means that much more competition for the consumer's dollar which the public utility companies must meet. And of course the public utilities have always been in competition with nonregulated business with respect to attracting employees and skilled management people, plant construction, buying of new equipment at high prices, and the raising of money in the public money markets. There is plenty of competition and the competition is getting tougher all the time.



EDWARD R. LUCAS

IN a sense, it might be even suggested that public utilities are in a more exposed competitive position by reason of the fact that their rates are regulated and the earnings controlled, whereas other industries are able to profit as much as they can. Public utility companies feel this type of competition most keenly during a period of dynamic economic expansion such as we are now passing through. All businesses must grow if they would flourish. But a nonutility business can regulate its own pace, so to speak. It can decide how

The year's biggest truck news is right here on this page!



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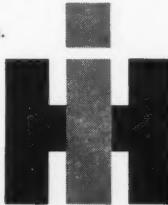
It's here! A great new line of light, medium and heavy-duty INTERNATIONALS from 4,200 to 33,000 lbs. GVW. They're *all truck*, with no passenger car components asked to do a truck job . . . with more features than ever for BIG money savings, in operating and maintenance costs.

These new INTERNATIONALS are powered by a range of 10 gasoline and LPG engines designed specifically for trucks. They give you high power and torque in the normal driving range where you can *use it*—in traffic, heavy going, up hills. And they give you this top performance at wear-reducing, money-saving rpm.

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PAGES WITH THE EDITORS (Continued)

much of a market it wants to serve and leave the rest to the competition, at least until it feels like expanding some more.

PUBLIC utilities, on the other hand, are subject to an obligation of public service. They must grow as the population and communities grow within their service areas. They cannot stop for breathing spells or wait for the more profitable kinds of business to catch up before expanding to meet an over-all increasing demand.

FURTHERMORE, because public utilities employ such vast amounts of capital for plant expansion—as compared with other lines of business—they are necessarily plunged into a competitive struggle with other business and other utility industries for new capital. The opening article in this issue is a thoughtful analysis of the future position of the electric utility business in a dynamic national economy. It outlines reasons why electric utilities must seek equitable rate adjustments to maintain proper growth and to put more emphasis on sales promotion and operating efficiency, if the industry is to fulfill its public service obligation.

THE author of this article is a well-known and qualified author in the field of discussion. He is EDWIN VENNARD, president of the Middle West Service Company. Born in New Orleans and educated at Tulane University (BS, '24) in mechanical and electrical engineering, Mr. VENNARD joined the utility business in 1926 with the Gulf States Utilities Company. The following year he became general commercial manager of the Southwestern Gas & Electric Company of Shreveport, Louisiana. In 1933 he became head of the rate department of the Middle West Utilities Company, the predecessor of his present organization.

* * * *

THE Northwest Power Pool is basically a conservation organization. Its purpose is to conserve water power that would otherwise be wasted at points where generation exceeds the load requirements of local utility needs. This is an explanation by EDWARD R. LUCAS, professional writer (whose article begins on page 855), resi-



JAMES H. COLLINS

dent in the state of Washington, of why the pool was formed and what it is seeking to accomplish. Mr. LUCAS is a native of Washington state and a graduate of the school of journalism of the University of Washington ('34). He has been a freelance feature writer for business and industrial magazines for the last ten years.

* * * *

IT probably has not occurred to many regulatory or utility people that an application for a rate increase is somewhat similar to the hired hand asking the boss for a raise. At least that is the interesting analogy used by JAMES H. COLLINS, professional writer of California (whose article begins on page 863), in analyzing some of the present-day public relations problems of issuing news releases and other publicity on rate case proceedings.

* * * *

FOLLOWING our annual custom of a number of years, we are presenting in place of the usual "What Others Think" department, the feature "What the State Commissioners Are Thinking About." This embraces excerpts and high lights from the various addresses and committee reports presented at the recent national convention of the National Association of Railroad and Utilities Commissioners at Asheville, North Carolina.

THE next number of this magazine will be out December 8th.

The Editors



Working side of a 3-section counter

How Cashiering AND Bookkeeping are combined in this 3-Clerk Counter...

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good public relations
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The three complete work stations making up this counter are Remington Rand's new sectional Customer Service Counter units.

Unlike custom-built counters, this sectional counter unit, which accommodates all facilities and records for a cashiering and bookkeeping station, offers complete flexibility. Here, three of the units are combined. These sections may be moved and adapted to a new location, or for larger quarters, a new section may be added. Whatever the number of clerk-stations you may require, this unit provides the highest degree of efficiency in the smallest amount of space.

Its appearance is open and friendly. The clerk *always* faces the customer — ready to serve . . . has complete facilities within arm's reach. No time is wasted walking from bookkeeping desk to customer. It eliminates working at a desk with back to customer — the "extra" desk is eliminated! Customers are served more promptly, efficiently and courteously.

There's a continuous parcel shelf, encouraging customers to step aside so that the next in line may be served.

The clerk works comfortably seated at her desk, ending the usual "standing" counter cashiering, with the fatigue and errors which are bound to result.

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PROBLEMS AND PROSPECTS OF GAS SUPPLY

The future of the natural gas business presents a striking paradox of a regulated utility fuel which has been so underpriced in many distribution market areas as to undercut economic competition from unregulated fuels, such as oil and coal. At the same time, and by very reason of the fact that it is at present a preferred fuel, natural gas runs the eventual risk of a diminished source of supply and production with increasing operating costs which might well drive it into the keenest competition with other fuels. The solution to this paradox is a problem of regulatory balance and restraint. Paul Kayser, president of the El Paso Natural Gas Company, has made a thoughtful and readable analysis of present and future trends in the economics of natural gas supply.

LET'S "SAVE" OUR ECONOMIC SYSTEM

The author of this article, John F. Childs, vice president of the Irving Trust Company, has used the word "save" in the best sense of prudent conservation and economy. "Saving" our economic system in this sense is an objective which should appeal to investors, consumers, and regulators. The press and the politicians also have a responsibility in the "saving" process. The tremendous sums of capital which must be raised for public utility enterprises impose an obligation upon all those who have any voice or influence in preserving public utility enterprise to assist in maintaining confidence by fair treatment of investors as well as consumers. Unlike the utility consumer or utility employee, the utility investment cannot go "on strike." It must remain committed in the public service.

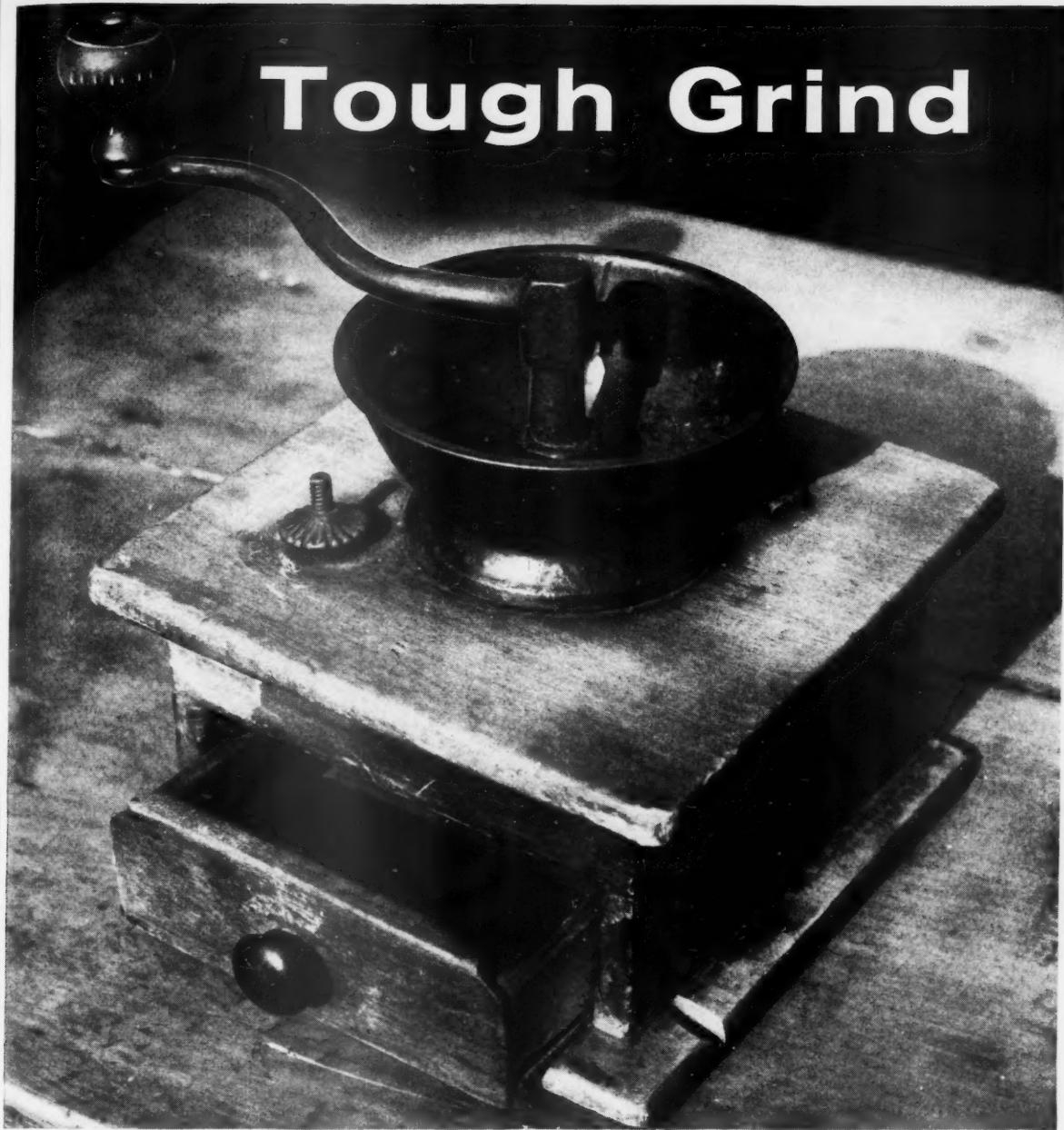
RESCUING "DOWNTOWN" AND ITS TRANSIT

We see and hear a great deal these days about rescuing "downtown"—meaning the established business sections of our large cities. Each passing day we see a steady trend of residential construction and business to the suburbs and a corresponding deterioration of the "downtown" area. Philip M. Talbott, executive vice president of Woodward & Lothrop's, the noted department store in Washington, D. C., has written a brief message on practical steps and guiding policies which should be employed in preventing the collapse of "downtown" business. It shows how everyone, including the local taxpayer, professional man, and others who may not even be located downtown have a stake in rescuing the central city area from the blight of lost property values and business volume.



Also . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.

Tough Grind



IT WAS a slow process to turn out the coarsely ground coffee this ancient "machine" produced, and the resulting brew was often highly variable in quality.

It's an even tougher grind to turn out accurate rate bill analyses and get them when needed, even when you employ skilled hands and modern office machines. The "One Step" Method of rate bill analyses has made all

other methods as obsolete as the antique pictured above. You get analyses in days instead of weeks, absolute accuracy can be guaranteed, the cost is 50% less and all the work is done in *our* office.

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HOMER FERGUSON
Member, former Hoover Commission.

HARLEY L. LUTZ
Professor emeritus of public finance, Princeton University.

EDITORIAL STATEMENT
The Wall Street Journal.

"All forms of coercive Socialism, which put materialistic, economic considerations first and spiritual considerations last, invite disaster."

"Employers and unions are destroying Capitalism and the American way of life, and I believe they are destroying them faster than the New Deal ever did."

"Time and again the Nervous Nellies have cried out that we are moving ahead too fast, that we are building productive capacity far greater than we can absorb, and that surplus must break down the market."

"We must not think of peace as a static condition in world affairs. That is not true peace, nor in fact can any kind of a peace be preserved that way. Change is the law of life, and unless there is peaceful change, there is bound to be violent change."

"We dig our own graves when we undermine free and individual initiative. The potential of individual initiative won World War I and World War II, and could have won in Korea but for stupidity, infamy, and even treachery that hamstrung MacArthur."

"Ours is a government of laws and not of men. We must keep the institutions which protect the individual. We don't need regulations and dictatorial powers. The growth of government can be stopped when each individual and each member of Congress becomes aware of the problem."

"The removal of other barriers to the free flow of funds into risk-taking and job-creating investments is a desirable step but it will be relatively futile unless there is also removed the very obstructive barrier of the high taxes on incomes, and the gross discriminations of the steeply progressive rates of tax on individual incomes."

"... labor automatically shares the benefits of automation and always has. Automation, after all, is not so much a new departure as a further refinement of the trend toward increased use of machines which has characterized the production of goods since the Industrial Revolution. The trend has been opposed every step of the way, but automation has never been found guilty of the principal charge against it—that it results in unemployment. . . . Commerce Secretary Weeks noted that between 1939 and 1953 factory employment increased 70 per cent while the population rose only 22 per cent."

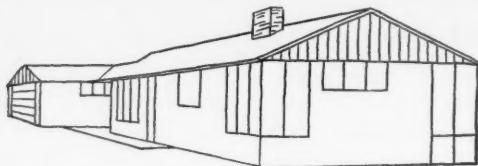
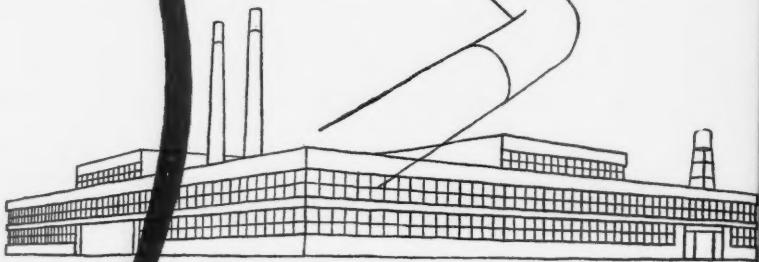
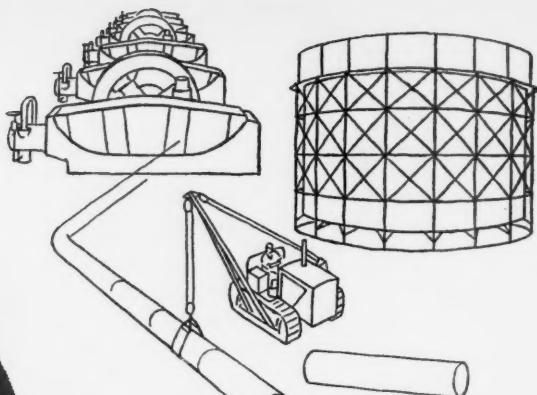


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CHARLESTON GROUP: United Fuel Gas Company, Atlantic Seaboard Corporation, Amere Gas Utilities Company, Virginia Gas Distribution Corporation, Big Marsh Oil Company, Central Kentucky Natural Gas Company; **COLUMBUS GROUP:** The Ohio Fuel Gas Company; **PITTSBURGH GROUP:** The Manufacturers Light and Heat Company, Binghamton Gas Works, Cumberland and Allegheny Gas Company, Home Gas Company, The Keystone Gas Company, Inc., Natural Gas Company of West Virginia; **OIL GROUP:** The Preston Oil Company.

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In its half-century of service to the gas industry, Ebasco has worked for clients on every phase of operations. For more information about our services, ask for "The Inside Story of Outside Help." Write: Ebasco Services, Incorporated, Dept. W, Two Rector Street, New York 6, N. Y.

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NOVEMBER

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WINNER in the tractor tandem-axle trailer event, James S. Jackson (left) of Pilot Freight Carriers, Inc., Winston-Salem, N. C., drove a Dodge 3½-ton V-8 tractor. Driver

James E. Tucker (at right) of Charlotte, N. C., representing the Great Southern Trucking Company, also piloted a Dodge to take second place honors in the straight truck event.

AGAIN—NATIONAL ROADEO CHAMPIONS WIN WITH DODGE TRUCKS!

Washington, D. C., Oct. 16, 1955—In the 1955 ATA National Truck Roadeo, 55 state champions competed for the title of the nation's best driver in straight truck, tractor single-axle trailer and tractor tandem-axle trailer events. Each contestant was required to put his truck through a series of the most grueling tests of driving skill ever devised. These included the Offset Alley Test, as well as Serpentine, Alley Dock, Straight Line and Stop Line Tests. And every contestant was free to drive any make of truck he desired.

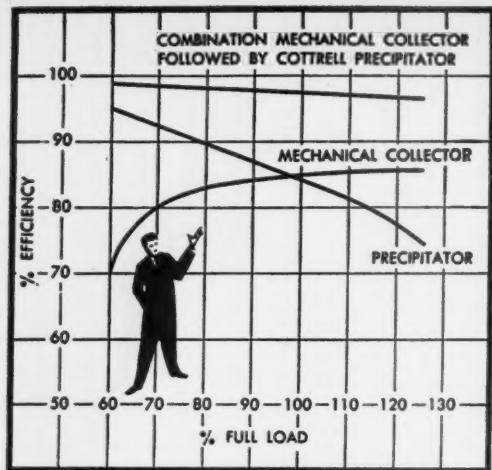
The prize-winning achievements of Mr. Jack-

son and Mr. Tucker speak for themselves. These national champions chose Dodge for its unexcelled maneuverability and performance. It paid off well for them. It can pay off for you, too—through savings in time, effort and dollars on your hauling job! Why not look into it with your Dodge truck dealer soon?

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CMP Unit

for recovering solids from stack gases in public utility operations

The control and recovery of fly ash from stack gases has always been a troublesome problem in public utility operations. With the development of the CMP unit by Western Precipitation Corporation, new economy and efficiency in the solution of fly ash problems are now possible.

Almost a half century ago Western Precipitation pioneered the first commercial application of the now-famous Cottrell Electrical Precipitator to recover suspensions *electrically*, and this equipment is still unsurpassed in its field.

Subsequently, to provide efficient fly ash recovery for low cost installations, Western Precipitation also pioneered the first small tube *mechanical* recovery unit — the Multicclone Collector — and this unit promptly gained widespread recognition for the new efficiencies it brought to mechanical recovery processes.

Combination Multicclone-Precipitator Unit. From these years of experience gained in both Cottrell and Multicclone installations, Western Precipitation recently offered another new development — the CMP Unit — a unit that combines in one compact installation many of the best features of both electrical and mechanical recovery methods.

In a typical CMP Unit, the stack gases first pass through a Multicclone section where the heavier materials are removed *mechanically*.

The partially-cleaned gases then pass through a Cottrell section where the very small particles are removed *electrically*.

This arrangement offers several advantages important to public utilities. Removing the heavier particles by the Multicclone process permits the bulk of the recovery operation to be performed

with relatively low-cost equipment. Using a Cottrell for the final clean-up insures unusually high recovery efficiency — approaching theoretically perfect, if desired. Thus, the CMP combines high recovery efficiency with low total cost . . . and, as shown in the chart above, has the further advantage that the efficiency curve of the Multicclone portion complements that of the Cottrell portion — *therefore the overall CMP efficiency remains practically uniform at all boiler loads*.

At low boiler loads the recovery efficiency of the Cottrell is highest, while that of the Multicclone reaches its maximum at high boiler loads. But, by combining the two types of equipment into a single CMP unit, the efficiency curve remains almost flat whether the boiler load is low or high.

With CMP equipment, even small utility companies can now afford adequate fly ash recovery. However, it is important to remember that full benefit of the CMP principle can be obtained only by a proper balance between the mechanical and electrical sections to fit the individual requirements of *each individual* installation. And no organization is better equipped to provide this critical "know-how" than the organization that provides integrated responsibility for Cottrell, Multicclone and CMP methods . . . *the Western Precipitation Corporation*.

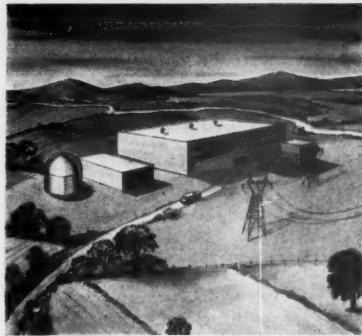
This unique background of experience in the solution of fly ash recovery problems is available from our office nearest you. May we give you more complete details?

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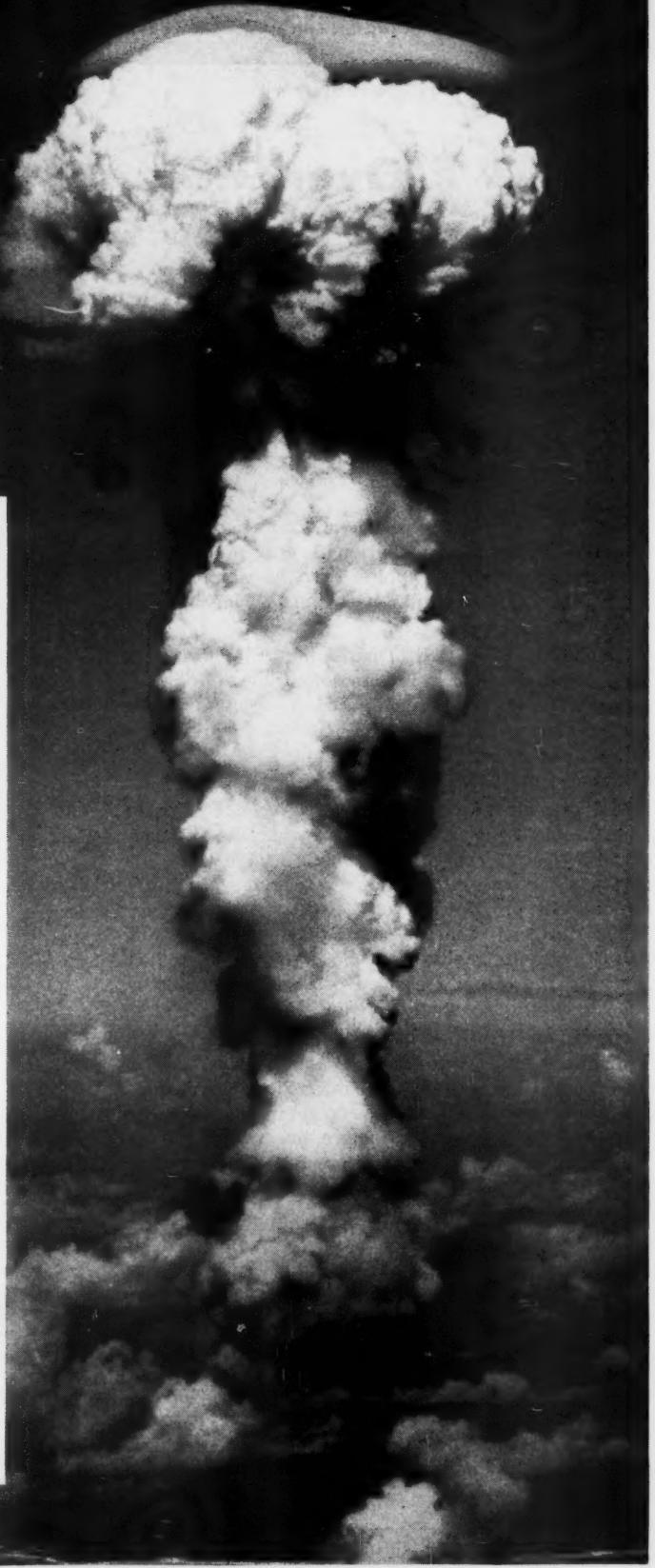


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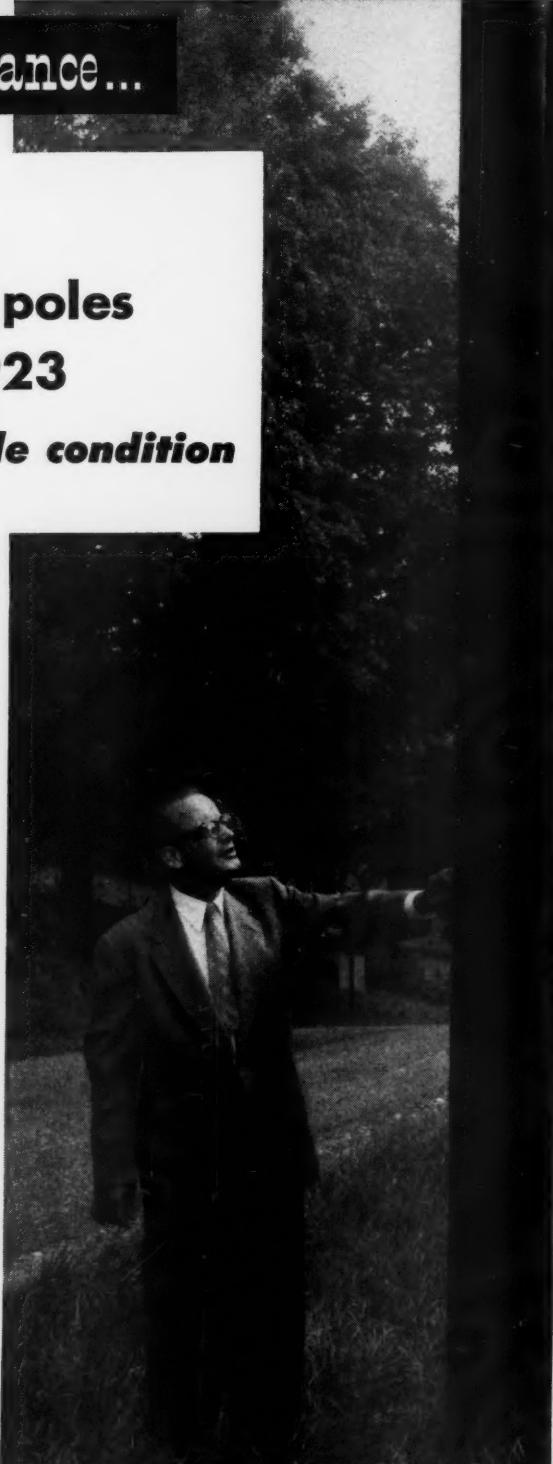
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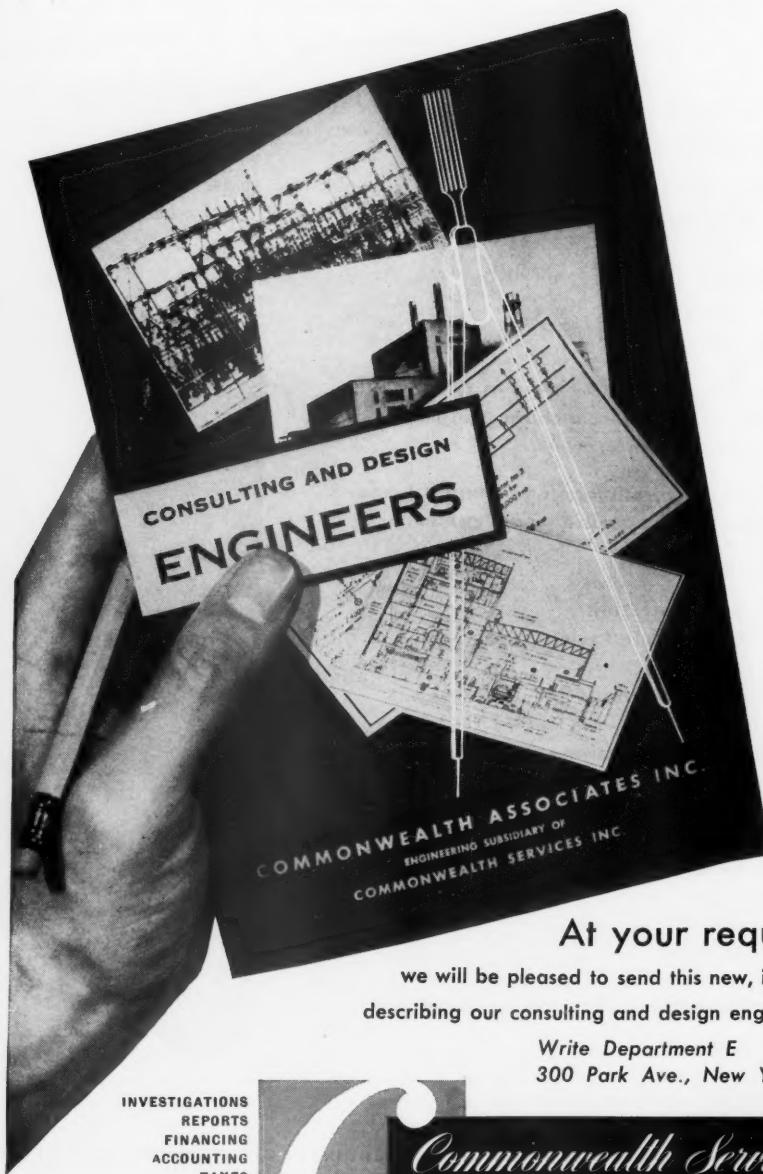
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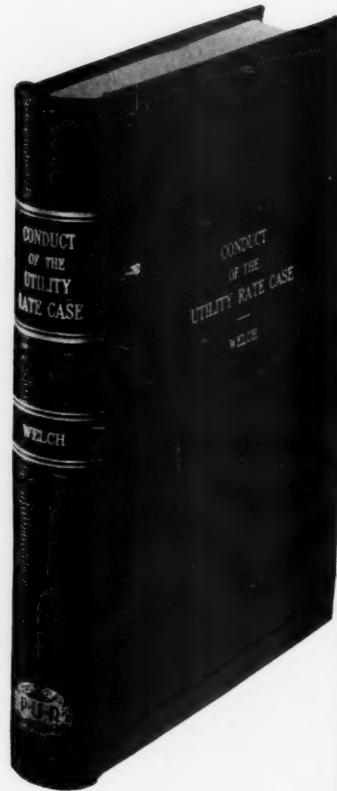
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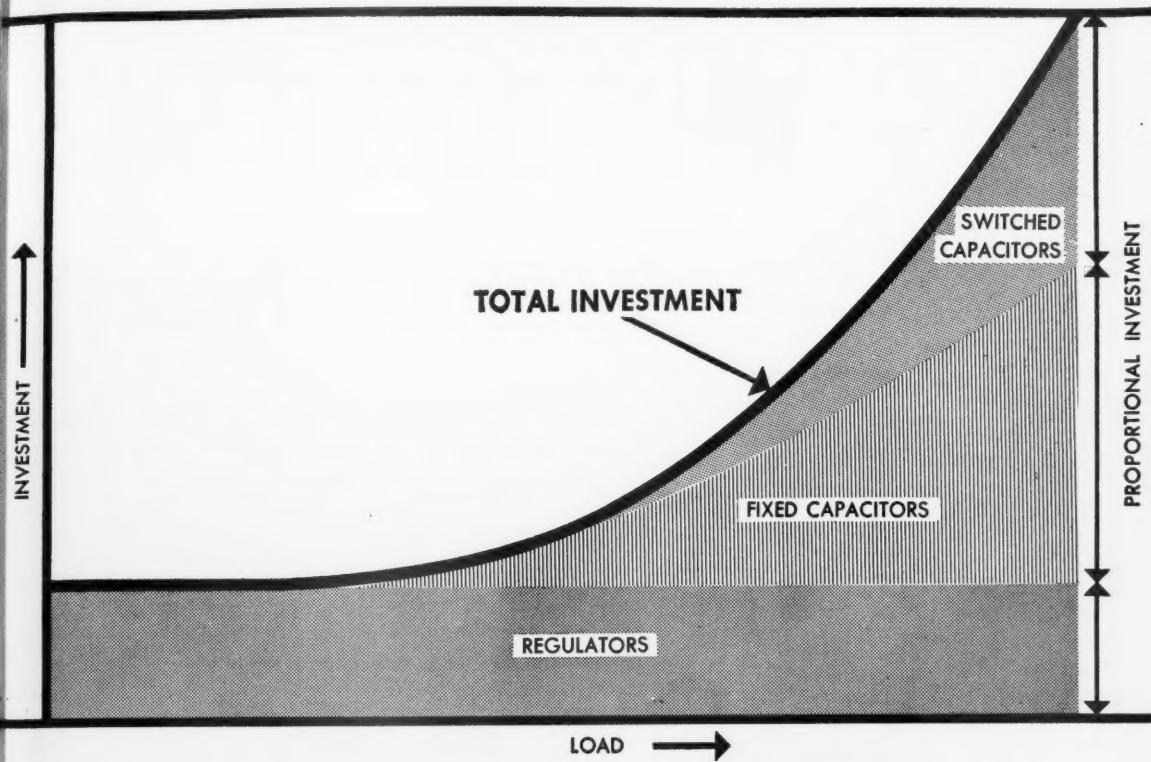
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PUBLIC UTILITIES FORTNIGHTLY—NOVEMBER 24, 1967

NOVEMBER



Key facts for the optimum investment for regulation



Conclusion; DEFER NEW LINE INVESTMENT BY USING REGULATORS PLUS CAPACITORS

It has been established by a comprehensive study of the voltage problem that a combination of regulators and capacitors does the best job of holding voltage . . . and at a lower cost, too. To utility planners, the results of this study are a guide to programmed expenditures for retaining desirable consumer voltages as loads increase.

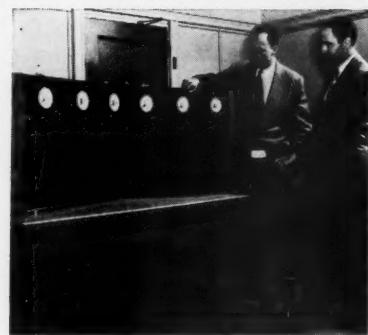
A suggested program for equipment procurement is shown above. Ideally, an investment in feeder voltage regulators should predominate at light loads and hence these should be purchased initially. As more load is added, fixed capacitors should be utilized to increase load capability. Finally, at heavy loads, switched

capacitors should be added along with more fixed units. The greater investment at these heavier loadings should be in such power-factor improving equipment.

Only when thermal limitations or excessive line losses appear, should it be necessary to rebuild the line. The result is that costly line reconstruction is delayed until absolutely necessary, and consumers continue to get good voltage.

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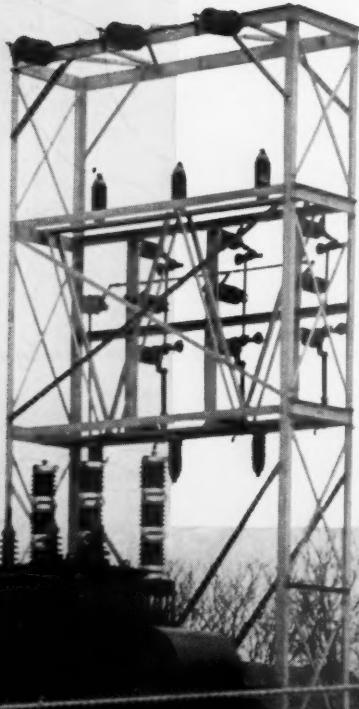
Portable demonstrator being used by G-E engineers R. M. Butler and D. R. Samson to show effects of capacitors and regulators under variety of feeder load conditions.

GENERAL  ELECTRIC

In Your Distribution Substations

WHAT DOES IT TAKE

to Switch the Primary?

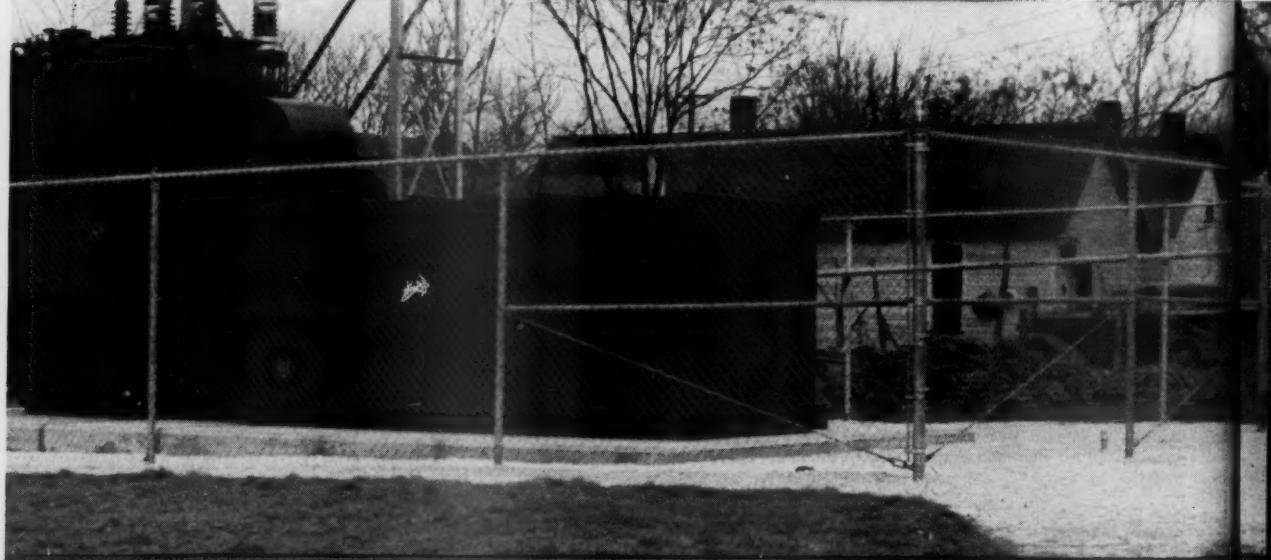


Do you have to consider whether the load is on and what it amounts to? What is the KVA rating of the transformer? And what about the system voltage?

Do you have to unload the secondary before breaking the primary?

What would happen in an emergency? . . . or if someone opened a switch inadvertently?

These considerations apply (consciously or unconsciously) when conventional air switches are used.



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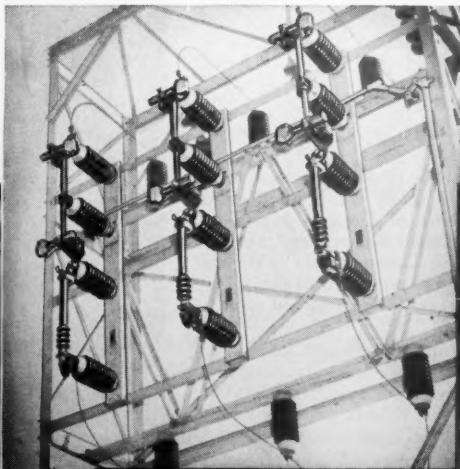
- The S&C Load Interrupter (Alduti Type) can break the primary circuit of a distribution substation any time under any condition (except short circuit). Switching cannot lead to dangerous phase-to-phase or phase-to-ground faults. It cannot endanger men or equipment.
- When you break the magnetizing current, the break is positive—clean—decisive. (You don't have to "dog" it as a preliminary.)

nary.) You are completely independent of wind velocity and wind direction.

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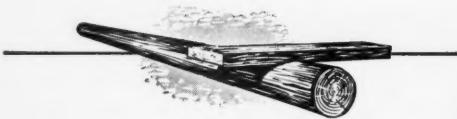
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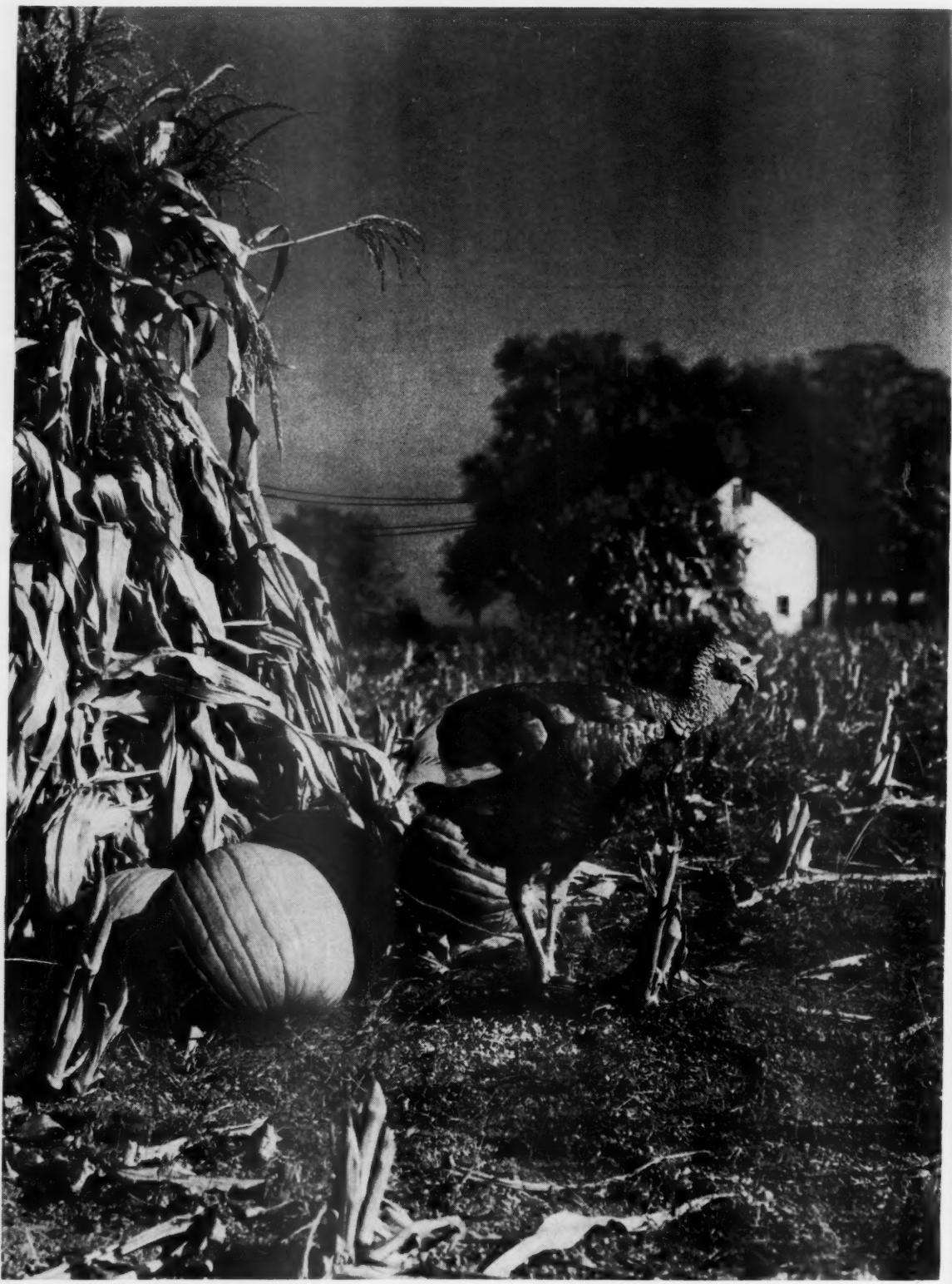
PUBLIC UTILITIES FORTNIGHTLY—NOVEMBER 24, 1955

UTILITIES

A.l.m.a.n.a.c.k

NOVEMBER-DECEMBER

Thursday—24	Friday—25	Saturday—26	Sunday—27
<i>Interstate Power Club will hold meeting, New York, N. Y. Dec. 12. Advance notice.</i>	<i>Engineers Joint Council will hold nuclear engineering and science congress, Cleveland, Ohio. Dec. 12-16. Advance notice.</i>	<i>Edison Electric Institute, Industrial Relations Committee, will hold meeting, New York, N. Y. Dec. 15. Advance notice.</i>	<i>American Institute of Chemical Engineers begins meeting, Detroit, Mich.</i>
Monday—28	Tuesday—29	Wednesday—30	December
<i>Inter-Industry Farm Electric Utilization Council begins annual national power use workshop, St. Louis, Mo.</i>	<i>American Transit Association, Purchases and Stores Division Administrative Committee, begins meeting, New York, N. Y.</i> 	<i>Electric Companies Advertising Program begins copy group meeting, New York, N. Y.</i>	Thursday—1 <i>American Society of Refrigerating Engineers begins annual meeting, Atlantic City, N. J.</i>
Friday—2	Saturday—3	Sunday—4	Monday—5
<i>Natural Gasoline Association of America begins Panhandle - Plains regional meeting, Amarillo, Tex.</i>	<i>National Association of Cost Accountants ends 2-day meeting, San Francisco, Cal.</i>	<i>New England Gas Association, Operating Division, will hold meeting, Boston, Mass. Jan. 19, 1956. Advance notice.</i>	<i>International Exposition begins exposition of chemical industries, Philadelphia, Pa.</i>
Tuesday—6	Wednesday—7	Thursday—8	Friday—9
<i>American Watershed Council, Inc., ends 2-day national watershed congress, Washington, D. C.</i> 	<i>National Housewares and Home Appliance Manufacturers Exhibits will be held, Chicago, Ill. Jan. 19-26, 1956. Advance notice.</i>	<i>Edison Electric Institute-American Gas Association begin customer accounting meeting, Atlanta, Ga.</i>	<i>American Institute of Electrical Engineers will hold winter general meeting, New York, N. Y. Jan. 30-Feb. 3, 1956. Advance notice.</i>



Photograph by Harold M. Lambert

Thanksgiving on the Farm—1955

Public Utilities

FORTNIGHTLY

VOL. 56, No. 11



NOVEMBER 24, 1955

The Electric Utility in an Expanding Economy

Contrary to much popular opinion, the utility business is not competition free. Despite government regulation, there is real competition in every phase of the business for the customer's dollar.

By EDWIN VENNARD*
PRESIDENT, MIDDLE WEST SERVICE COMPANY

WHAT is the most notable economic characteristic of a public utility?

Certainly the most obvious is the fundamental economic difference between a typical public utility and the ordinary manufacturing company. The difference lies in the much greater investment per dollar of annual income in the utility business.

It takes an average investment of

some \$4 to produce a dollar of annual sales in the electric utility business as compared to an investment of 34 cents for the ordinary manufacturer. For example, to get the same gross sales as a successful manufacturer with \$100,000 invested capital, an electric company must invest well over a million dollars in facilities. It is this difference that makes it contrary to public interest to duplicate a public utility in any particular area. In the absence of more than one utility in an area, government

*For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

regulation is required to protect the public interest.

The ratio of invested capital to sales has proven to be a troublesome factor to the utility company during recent years in which our economy has expanded rapidly and substantially. Let us see why this is so.

In our examination of the economic pattern of the utility business during the past twenty years, it will be necessary for us to use as a yardstick the annual net revenue expressed as a per cent of investment. We have been used to speaking in terms of annual revenue and gross sales. A glance at the charts (see Figure 1, page 849) shows that the annual revenue of the average utility company has enjoyed a remarkable growth. It has almost trebled since 1940. Compared to prewar periods, the utility seems to be enjoying great prosperity; actually, the situation is different, and not nearly so optimistic as references to "annual revenue" would lead us to believe.

ANNUAL revenues have shown great increases, but correspondingly greater investments have been necessary to produce, transmit, and distribute the power which resulted in these increases. In addition, the utility business is faced with the practical problem of attracting investors' capital. Additional capital is needed to permit us to continue to improve and expand our facilities. In order to obtain this capital, we have to be in a position to offer something of value to the prospective investor.

In the case of the utility, that "something of value" is a moderate return in a fairly safe operation. While today we are still able to lay claim to being safe financial operations, we cannot continue to

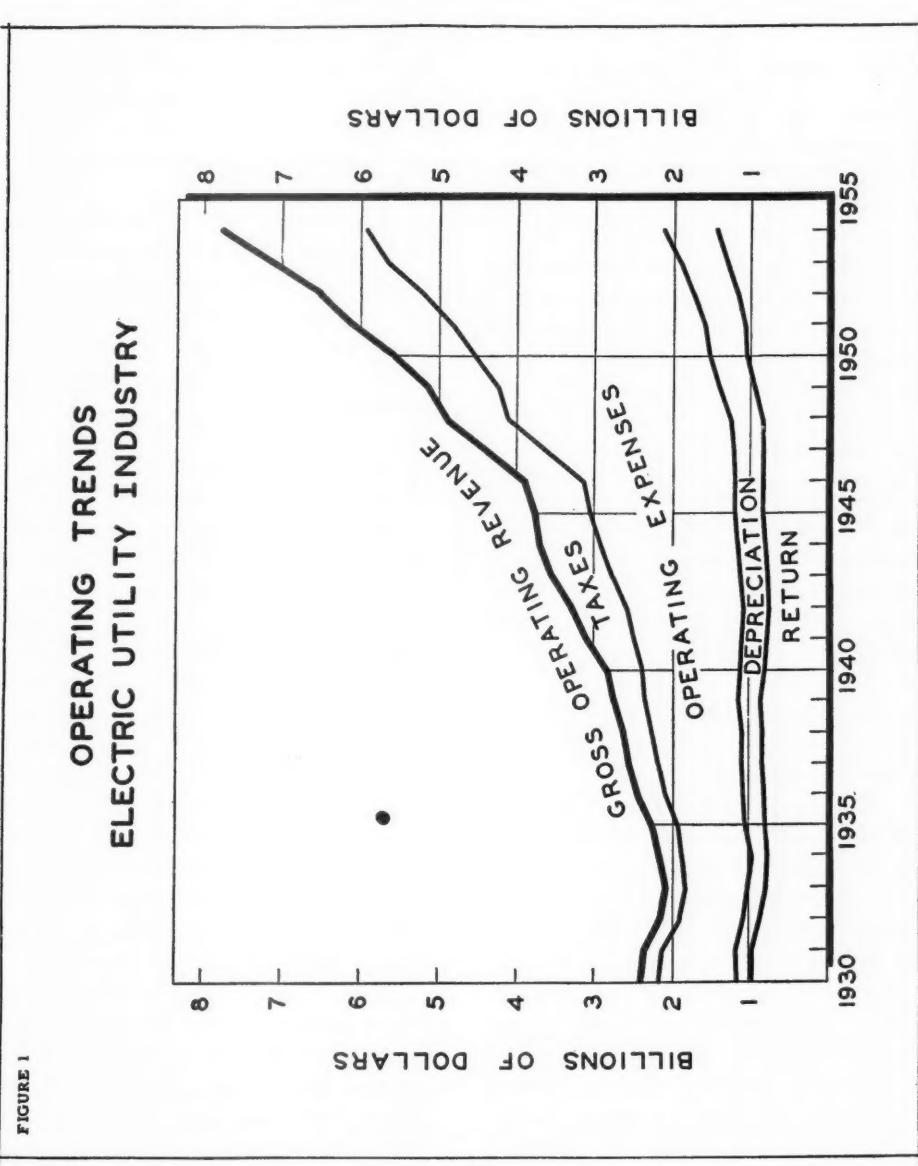
boast the same fairly good return which we enjoyed prior to the inflation period we have recently experienced. As a result, we are forced to compete more strenuously for the new investment dollar. The result of economic forces on the utility business will be reflected in the way the investor sees it—through the per cent return on invested capital.

What has happened to the per cent net return during the period 1933-53? It is interesting to note on Figure 1 that while gross operating revenue has almost quadrupled since 1933, dollar net income has shown a much smaller increase over the period. There has been some increase in net since 1948 because of rate increases and because of the new, more efficient plants that have come into operation. However, as will be pointed out later, the increase in net income has not been enough to earn a satisfactory net return on the cost of expansion, even with the rate increases so far obtained.

UILITY plant investment (see Figure 2, page 851) rose during the twenties and leveled off during the thirties. During this depression period the industry was using up excess capacity. Capital expenditures for added facilities started to rise during the early forties but leveled off again during the war period. Power companies could not purchase generating equipment during the war because electrical manufacturers had turned their efforts toward supplying the Armed Forces. As the war drew near to a close, beginning in about 1944, a rapid increase in plant expansion began to take place. It appears probable that this investment increase will continue for a long period of time.

In order to appreciate the significance

THE ELECTRIC UTILITY IN AN EXPANDING ECONOMY



PUBLIC UTILITIES FORTNIGHTLY

of these long-range trends, it seems advisable to divide the years since 1933 into three periods.

First Period: 1933 through 1939

During this period the industry increased its sales but realized very little increase in net revenue. Rates were being decreased during this period. The industry was able to maintain a sound financial position only by "lying low"—conserving capital and avoiding plant expansion. The industry was using up existing plant. Net per cent return averaged 5.79 per cent during this period.

Second Period: 1939 through 1945

The industry continued to increase its sales and showed some increase in plant investment. Again there was only a slight increase in net revenue. The industry realized an average net per cent return of 5.31 per cent during this period.

Third Period: 1945 through 1954

THIS is the period in which we are most interested. Sales nearly doubled. Unlike the first period (1933-39), however, the industry had to increase its plant substantially from 1945 through 1954. Unlike the second period (1939-45), the cost of money has not declined but has shown a gradual rise. As a consequence of the rising cost of money, the electric industry has found that it is necessary to show a rising return in order to attract fresh capital. Increasing amounts of capital were needed to enable the continued building of needed facilities.

However, the increase in net income has not been sufficient to enable the in-

dustry to earn a fair return on the rapidly expanding plant investment. As a consequence, the per cent return has declined during this latter period. The cost of making and delivering a unit of electricity during this period reversed the 1902-44 downward trend. A doubled output of electric power has resulted in a rise, rather than a reduction, in unit cost. When any industry shows a decline in per cent return during a period when sales are increasing, it suggests that something may be wrong with the pricing policy. A commodity should be priced in such a way that an improvement in earnings will result from increased sales.

THIS decrease in per cent return on invested capital has taken place despite increased efficiency in power production and despite all efforts of management to control costs in other areas. The power business necessarily uses commodities, manufactured articles, and labor, all of which can no longer be paid for at prewar rates. Increased costs of these and other items are not a matter entirely, or even mostly, within our control. Where costs could be cut, the utility business has cut them. New developments in the engineering field have given us more efficient generating equipment; every effort is being made by operating executives to increase the utilization of existing plant.

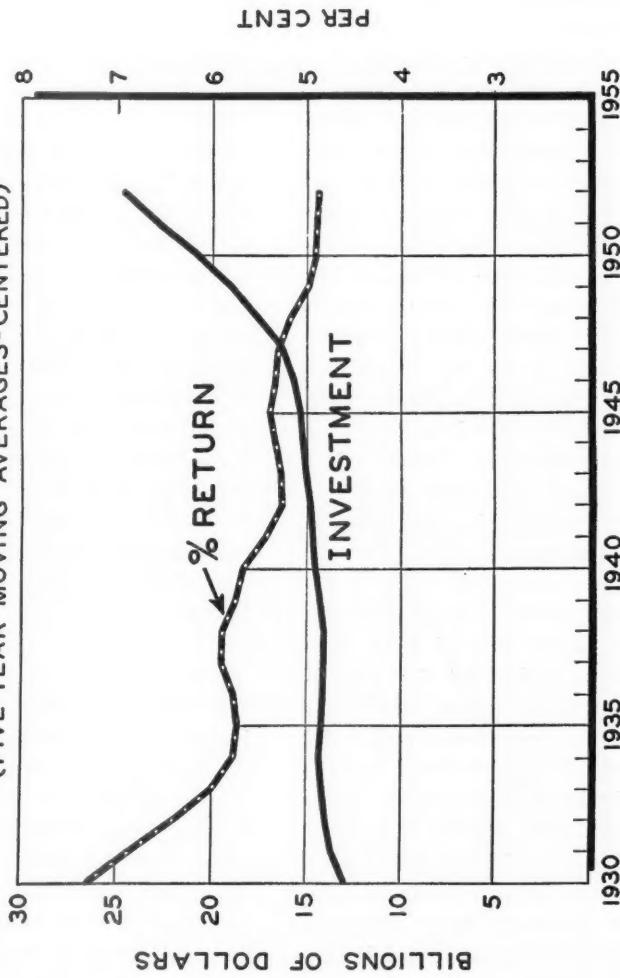
Lower earnings are due in large measure to factors beyond the control of the utility executive—the increase in operating costs and the drastic change in the tax picture which has taken place since 1940. The extent of current taxation together with other inflated costs has thrown the relationship between operating costs and rates out of balance, and rates must be

THE ELECTRIC UTILITY IN AN EXPANDING ECONOMY

FIGURE 2

CONTRASTING TRENDS

OF
INVESTMENT AND % RETURN
(FIVE YEAR MOVING AVERAGES-CENTERED)



PUBLIC UTILITIES FORTNIGHTLY

revised in order to restore proper earnings. Increases sought to date have not been sufficient for this purpose.

This does not mean that electric utilities should change the sliding-scale nature of their rate schedules. It is still true that for any particular year it would cost less per unit to sell a particular customer 10,000 kilowatt-hours at a certain load factor than it would cost to sell him 1,000 kilowatt-hours at the same load factor. That is because certain expenses, such as accounting and collecting expenses, vary with the number of customers rather than with the customer's use of electricity. However, offsetting this factor we have to contend with inflation which has caused a general increase in the cost of making and delivering electricity. The industry has done remarkably well in holding cost increases to a minimum. Technological improvements have increased efficiency; yet the specter of inflation continues to haunt our cost picture.

THE cost of living is more than 270 per cent above that of 1913. The average price of residential electricity is now only about 30 per cent of what it was in 1913. The average price of residential electricity today is less than it was in 1940 when the big inflation started. It is remarkable that some electric companies have been able to avoid rate increases as long as they have. It is further remarkable that they are able to get by on the small increases that are being requested in current rate cases. Serious consideration must be given to establishing rates which will permit utilities to maintain their financial positions in the present expanding economy. At the same time, we must guard against seeking rate increases which would

impair our competitive standing. Each utility company owes it to the public it serves to give that public the most efficient service possible; special attention must be given to discovering improved operating methods and eliminating inefficiencies; attention must be given to building load factor. Perhaps more can be done in this latter field than any other. Note that in Figure 3 (page 853) the net return on invested capital varies directly with load factor. A little attention devoted to selective selling can pay off in a larger per cent of net profit at the end of the year.

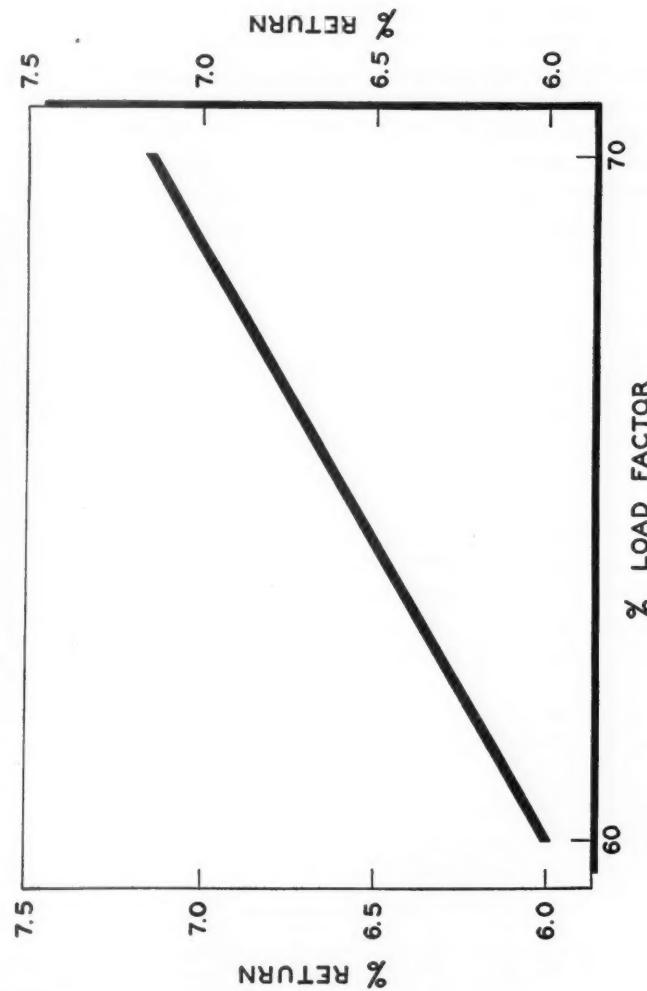
The question of efficient use of existing facilities—load factor—has always been of importance to power companies, as it is to all utilities. It is especially important under present economic conditions. The load factor is the measure of the utilization of the investment. Since investment is so high with respect to gross revenue, it is doubly important that every effort be made to bring about the maximum utilization of the investment through improving load factor.

A MODERN sales program is geared not only to volume of sales but to the building of favorable load factor. Increased use of electricity alone may or may not improve the company's earnings. During the years prior to 1944 when there was a decrease in the cost of making a unit of electricity, any reasonable increase in volume would result in an increase in per cent of return. That is not true today. Consequently, selling is more difficult because it needs to be more selective. That does not mean that we should refuse to furnish energy for any reasonable purpose the customer desires. It does mean that we should use every effort to insure

THE ELECTRIC UTILITY IN AN EXPANDING ECONOMY

FIGURE 3

THE RELATIONSHIP
BETWEEN
% RETURN AND % LOAD FACTOR



PUBLIC UTILITIES FORTNIGHTLY

ourselves that our sales program is building load factor. Selective selling has become more important than ever, in recent years. It is advisable to sell a certain number of water heaters along with a certain number of ranges. The combination of the range and water heater results in a steadier use of electricity than the range alone. Special selling effort should be directed toward appliances that tend to build high-load factor such as the two-temperature refrigerator, the freezer, the attic fan, bed coverings, and lighting. Increased lighting business is especially a good builder of load factor. The selection of appliances for special sales effort should be made only after an adequate study has been made of the load curve of the individual company concerned, since areas in which improvement is needed vary widely among power companies.

CONTRARY to popular opinion, the utility business is not competition free. Despite government regulation of public utilities designed to offset the effect of competition, there is real competition through every phase of the business. First of all, there is competition for the customer's dollar. There is always competition among industries to obtain a fair share of the national income.

Among all the major appliances there is real competition. In the home there is

competition in the field of cooking, water heating, refrigeration, laundry, garbage disposal, air conditioning, and other services. In commercial establishments there is competition for restaurant cooking business, air-conditioning business, and the heating business. In the industrial field there is competition throughout. Any industry could generate its own power with its own plant. Or the industry could put in its own gasoline, steam, or diesel engines to replace electric motors. The electric utility must be able to do the job better and cheaper in order to stay in business.

In all these fields the rate schedule must be reasonably competitive or the electric utility will not get the business. Also, the utility must maintain a sales organization or it may not get its fair share of the business even when rates are competitive.

IN summarizing our best approach toward correcting the present unbalanced situation, we must (1) seek equitable rate adjustments which will permit the utility to maintain its relative position, (2) expand sales effort to insure continued growth, build load factor, and fulfill our duty to the consuming public by providing more electric living for everybody, and (3) strive always to improve operating efficiency, so that we can keep our costs down, thereby preventing the necessity for seeking further rate increases.

"SOMEWHERE, in every business, there is a point of no returns. This is the point at which the cost of producing the product exceeds the price the customers are willing to pay. And this point being passed, every business must alter itself and all those who live by the business—be they stockholders or employees—must alter with the alteration. The penalties are not a matter of choice. They are inexorable."

—EDITORIAL STATEMENT,
The Wall Street Journal.

The Northwest Power Pool

The Northwest Power Pool is basically a conservation organization. Its purpose is to conserve water power that would otherwise be wasted at points where generation exceeds the load requirements of local utility needs.

By EDWARD R. LUCAS*

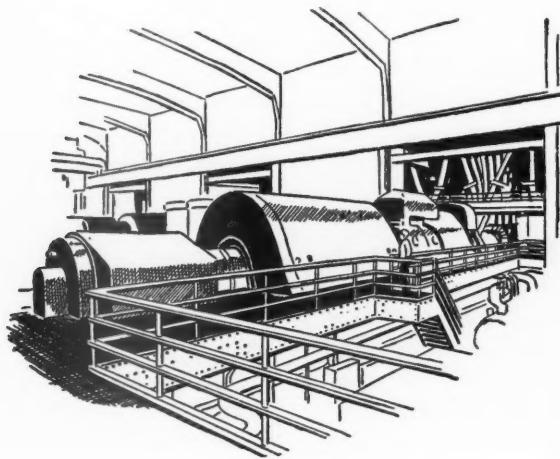
WHEREVER it's the climate, the people, or the resources, voluntary regional planning seems to have become a firmly entrenched habit of thinking among utility executives of the Pacific Northwest. A unique example of this ability to plan and work together without imposition of authority from above, is seen in the Puget Sound Utilities Council, whose operations were described in a previous issue of *PUBLIC UTILITIES FORTNIGHTLY*.¹ A larger and older voluntary group that has been in successful operation since World War II, is the Northwest Power Pool.

*Professional writer, resident in Poulsbo, Washington. For additional personal note, see "Pages with the Editors."

¹"The Puget Sound Utilities Council," by Edward R. Lucas. Vol. 56, No. 2, July 21, 1955, p. 77.

The most significant similarities of the two groups are that both are entirely voluntary and are concerned with furnishing more electric power more economically to the regions they serve. But there are essential differences, too, the most obvious being the difference in size of the geographic area served. Where the council includes five utilities in only one closely knit region of western and central Washington, the Northwest Power Pool represents eleven utilities serving the states of Washington, Oregon, Idaho, Utah, and Montana, plus the southwest part of the Canadian Province of British Columbia.

Another important difference lies in the scope of problems which the groups attempt to solve. The council concerns itself not only with utilization of existing facil-



PUBLIC UTILITIES FORTNIGHTLY

ties but with planning, co-ordinating, and agreements making possible construction of new generating facilities. The sole function of the power pool is to utilize more fully and efficiently the existing power resources.

BECAUSE it concerns itself with what are basically policy decisions, the members of the council are all representatives of management of the participating utilities. The members of the operating committee of the pool, on the other hand, are exclusively the "operators," the technical men whose job it is to make policies work.

If its objectives are more circumscribed than those of the council, that fact does not by any means belittle the importance of the power pool's work. The peaking capability of the eleven utilities in the pool amounts to about 8,000,000 kilowatts. Of this amount, it is estimated that between 600,000 and 800,000 kilowatts of load-carrying capability have been added solely because of integrated operations made possible by the Northwest Power Pool.

The mere fact of organization, moreover, is not sufficient to bring this added power capability into the transmission lines of the member utilities at the right time and place. Much complex planning and organizational work is necessary each year on the part of members of the operating committee.

The Northwest Power Pool is basically a conservation organization. Its purpose is to conserve water power that would otherwise be wasted at points where generation exceeds the load requirements of the local utility. In terms of power saved and therefore used, the organizational program in the Pacific Northwest has been

especially rewarding. There are several basic reasons why this should be so.

THE most obvious reason is the fact that the Pacific Northwest is an area of abundant water power, and that most of the electricity generated there comes from hydroelectric installations. Since stream flows fluctuate both seasonally and from year to year, the power generated from each hydro installation fluctuates accordingly. With steam-generating plants, power can be generated according to load requirements, though usually more expensively. There are steam-generating plants operated by utilities in the pool but the purpose of the group operations is to utilize the hydro-generated power to the fullest, and reduce the use of high-cost steam generation to a minimum.

One way this conservation of water power is effected is by interchange of power between utilities. This can be done where one utility has more energy than it needs from its installations that is going to waste downstream at a particular time, that it transmits to another utility that lacks enough to meet its needs at that same time. Then at another time, the second utility may have a surplus of energy going to waste downstream while the first utility has a shortage, due to stream conditions or load factors. The second utility then pays back the first for the energy it "borrowed" earlier. The ability to pool their resources by exchanging power in this manner thereby raises the capacities of both utilities.

ANOTHER way electric energy may be conserved by pooling is by means of storage reservoir. The first illustration assumed an exchange of power between two

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run-of-river plants where there is no means of storing the excess runoff over current load requirements during high water periods. Where there is a storage reservoir and generating plant in a utility system, such a reservoir may be used to store surplus energy for a run-of-river plant, thereby "banking" that power for its future use.

This transaction takes place when the run-of-river plant has generation in excess of load and water is being drafted from the storage reservoir for load. Accordingly, the run-of-river plant transmits its excess power to the system served by the storage reservoir, which then cuts down the water flow to its generators, storing additional water in its reservoir. By the usual arrangement, that water then "belongs" to the run-of-river plant for later power generation and transmission. Arrangements differ, however, and the owner of the reservoir may elect to purchase outright the stored energy rather than return it later. But the important point is that the energy is conserved for later use in the general load.

THE advantages of pooled operation cannot be realized, however, unless there is sufficient diversity of certain con-

ditions within the area. For instance, two run-of-river plants, whose periods of power surplus and shortage coincide, could hardly exchange power with one another, assuming their situations were the same with respect to load.

In the Pacific Northwest, there is a wide diversity in the several critical factors that make it possible to derive many advantages from the pool.

There is, for example, diversity of time. The eastern half of the area served by the pool is on Mountain time, while the western half is on Pacific time. This means that people in Idaho and Montana get up, go to work, and cook their meals an hour earlier than do people living under Pacific time. This spreads and flattens out the over-all peak load.

ANOTHER important factor is diversity of load. The Mountain states of Montana, Idaho, and Utah have heavy mining loads, while the West coast cities of Portland, Tacoma, and Seattle have a higher percentage of domestic and rural loads. These diversities tend to distribute the load both seasonally and over a greater part of the day.

Diversity of resources also helps the utilities to derive more advantages from



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pooling. Variations in stream flow patterns are co-ordinated into a single one for the power pool as a whole. This results in a higher firm power capability of the integrated systems.

POOLING makes possible fuller use of a region's power resources in yet another way. An isolated utility must carry enough reserve to be able to meet its load requirements if its largest generating unit should have a breakdown outage. But where several systems are joined together, this reserve requirement may be reduced and loads accepted for a larger proportion of existing capacity.

The prime power capability of a utility will likewise be improved by participation in a pool. Jack D. Stevens, Seattle, Washington, consulting engineer, explains how this factor improves the position of utilities of the Northwest Power Pool. He observes:

The most critical historical hydro conditions for the power pool as a whole are represented in stream flows which occurred during the operating year, July, 1936, through June, 1937. If the various systems were operated on isolated bases, some would continue to have 1936-37 as their most critical hydro year, but others would have different critical years, such as 1929-30, 1930-31, or 1934-35. When the resources of all these systems are integrated, however, it is found that 1936-37 is the most critical year for the group as a whole. The benefit of integration can readily be appreciated when one considers that if 1929-30 were the most critical year for Utility "A," 1936-37 water conditions would

be higher. The prime power capability of Utility "A" would automatically increase from that of 1929-30 on an isolated basis to that of 1936-37 on an integrated basis.

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By 1946 there was a surplus of generating capacity in the region as a whole and the need for the pool was no longer critical. By 1950, however, new industries, such as aluminum producers, had contracted for large blocks of power and the supply again became critical despite new generating capacity.

Although there are now some 8,000,000 kilowatts of peaking capacity in the utilities represented in the pool, or twice the 1946 capacity, there is still no surplus. In a year of median stream flows, the utilities are able to supply the entire firm and interruptible loads. But if stream flows should become critical, the operating committee estimates, the entire interruptible load could not be carried during the winter months. Therefore, any program such as the power pool that adds some 10 per cent to the total capacity of the region, under circumstances of potential power scarcity, is vitally needed.

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Regional Planning Trend

“WETHER it's the climate, the people, or the resources, voluntary regional planning seems to have become a firmly entrenched habit of thinking among utility executives of the Pacific Northwest. A unique example of this ability to plan and work together without imposition of authority from above, is seen in the Puget Sound Utilities Council . . . A larger and older voluntary group that has been in successful operation since World War II, is the Northwest Power Pool. The most significant similarities of the two groups are that both are entirely voluntary and are concerned with furnishing more electric power more economically to the regions they serve.”

THE power pool is actually a compound organization of pools within a pool. There is, for example, the intercompany pool which is composed of four privately owned utilities of the Northwest Power Pool. They are The Washington Water Power Company, Pacific Power & Light Company, Portland General Electric Company, and Puget Sound Power & Light Company.

The intercompany pool was formed in 1947 when the five utilities' loads had grown to such an extent that their own

hydro resources were insufficient. They decided to obtain the needed additional capacity on a combined basis and entered into an intercompany power contract establishing the intercompany pool. The method of operation of this pool is described in an ICP release as follows:

Briefly, the needs of the members above their own hydro and miscellaneous industrial resources are supplied by the ICP by purchases of hydro and steam energy from other members of

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the pool extending as far as Idaho and Utah, British Columbia, and southern Oregon. An organization composed of representatives from each of the utilities is stationed in Spokane to plan the operations and take care of the hour-by-hour scheduling of power flows and the accounting and billing requirements. Frequent power and cost studies are made by the ICP, either with respect to the ICP itself or the entire Northwest Power Pool, to determine the estimated future requirements and available resources together with their costs. Such information is used for negotiating contracts as well as the day-to-day and hour-to-hour operations. Each year the ICP utilities negotiate a "charge-out" formula for the power and energy purchased from the ICP in order to share equitably the costs incurred by the ICP in supplying the requirements of the member utilities.

IN a somewhat similar manner, the utilities serving the states of Utah, Idaho, and Montana, known as the East group, also integrate their operations, while the Seattle and Tacoma municipal systems operate together. The British Columbia Electric Company operates independently.

The federally owned installations are also an essential part of the power pool. The several large blocks of storage in the federal system, such as the Grand Coulee reservoir, are utilized to "mold" the generated power to the loads. And the federal transmission network is equally essential.

The utilities must, of course, pay a charge to the government for use of its storage facilities, so that stored power is more expensive than immediately used power. In this connection, the Puget

Sound Utilities Council has enough storage to mold its present resources to load. Even such large blocks of new power, such as that to be developed at Priest Rapids and Rocky Reach, could be molded by the council's large storage facilities. The five council utilities are therefore contemplating the formation of a Puget-Cascade power pool which would function as one of the several pools within the Northwest Power Pool.

THE transmission network of the Northwest is also inadequate at some points. In 1952, for example, some 95,000 kilowatts of surplus firm energy was bottlenecked in the Utah-Idaho area due to the transmission limitation of the Grace, Idaho-Anaconda, Montana line. The power was urgently needed but could not be transmitted to the West group. Most of the transmission network is adequate, however, and the general directional flow of power throughout the year is described by Jack D. Stevens as follows:

Surplus power received from the Utah-Idaho area is combined with surplus in Montana, including unused resources at the government's Hungry Horse project. The combined surplus flows west to the Spokane area during the winter. The Washington Water Power-Montana Power Company interconnection at Burke has a capacity of about 150,000 kilowatts, and the Bonneville Power Administration-Montana Power Company interconnections at Anaconda and Kerr have capacities of 80,000 kilowatts and 40,000 kilowatts, respectively. Thus the total interconnection capacity between Montana and the West group is 270,000 kilowatts. This

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total varies with operating conditions. In the summertime, secondary energy flows east from Spokane and storage is held in the Montana reservoirs for later use. Surplus energy on the B. C. Electric Company system flows south to the Puget Sound area. The over-all interchange capacity between the East and West group utilities will be increased by the construction of a relatively short interconnecting line between the Oregon cities of Baker and LaGrande. The Idaho Power Company system extends west to LaGrande.

In the relations of member utilities to the pool, the Northwest Power Pool is strictly a voluntary and co-operative group. The program for the pool is laid out by the thirty-one members of the operating committee who are representatives of the eleven utilities in the group. These men are all technical men and their sole function is advisory: to study the needs of the area and its facilities and to work out a co-operative program that will best achieve the professed objectives of the pool. Their recommendations may be followed or they may be ignored by the member utilities, as no compulsory powers have been built into the pool's organizational structure. In practice, however, the committee's recommendations are followed as closely as developing conditions permit.

A new program is made up for each year, and as published it is a detailed, highly technical document. The objectives of the pool are not lost sight of, and are stated by the committee at the beginning of its 1955-56 report as follows:

1. Assure carrying of the firm load with adverse hydro plant water supplies.
2. Next, provide for carrying interruptible load to the extent that resources are available.
3. Next, utilize hydro in preference to steam generation, and higher-efficiency steam in preference to low-efficiency steam.
4. Set up an operating pattern that gives consideration to the probability of future stream flow levels.

The program as outlined by the committee then serves as a general guide for the member utilities to follow to co-ordinate with the rest of the pool. It includes estimates of monthly loads submitted by the member utilities which are totaled for the region. The peak load normally occurs in January and is lowest in July. Unusual weather conditions such as an abnormally dark, cold winter can increase load requirements substantially. However, the loads can be predicted with considerably more assurance than can stream flow.

To serve as a guide in adjusting to stream flow fluctuations, the commit-



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tee sets up two standards based on previous experience. These are median water or normal conditions, and critical. The critical is based on water for the 1936-37 period, when stream flow was the lowest that has occurred in any period in the region as a whole during the thirty years or so that records have been kept.

The period which the current program covers started July 1, 1955, and extends through June, 1956. It draws some general conclusions, in event of either critical or median water.

In event of critical water, it concludes that there are sufficient resources to carry the estimated *firm* loads, although critical water would greatly restrict the available hydro energy for the interruptible load. There would be enough hydro and steam energy for the total interruptible load in all months except January through April. Of the total interruptible load in the West group and Montana, an estimated 25 per cent could not be served in event of critical water.

For median water in this period, the total firm and interruptible loads could be carried throughout the year, the program estimates. Steam energy generation would still be required in the Idaho-Utah area throughout the year, but in reduced amounts from those required in a critical year. In the West group-Montana area, steam generation is needed in August to keep the reservoirs full until the storage draft season starts. Some additional steam energy would be required in November and December and again at the end of the storage draft season.

The program also discusses load estimates, peak load diversity, water assumptions, reservoir storage, reservoir rule

curves, load curtailment, and makes recommendations for more efficient hydro operation.

In regard to pool operation, the committee recommends procedures and steps to be followed during each principal period of the 1955-56 year. Since the periods of high-stream runoffs occur during periods of diminished power consumption, it is only the existence of storage reservoirs that permits the hydro energy to be stored and later molded to loads. The storage draft season does not start until September when stream flows have diminished, and continues until the following April, when most reservoirs have been drafted down to low elevations and stream flows have started to increase. Many of the recommendations of the committee are therefore concerned with manipulation of storage reserves, under what conditions water can be drafted below the reservoir rule curves to conserve steam power, and when steam power should be used to conserve water in the reservoirs. The report also stresses the importance of drafting certain reservoirs in the correct sequence to assure maximum utilization of water power.

Most essential of all to the technical operators who are guided by the program, the report contains over 40 pages of detailed figures. One typical page contains some 720 figures. They contain such information as energy summaries, peak summaries, load estimates, and reservoir summaries, under conditions of both critical and median water for all utilities and installations in the pool. A number of illustrative charts and graphs are also included.



New Censorships for the Relations Man

This is a discussion of some of the present-day public relations problems of issuing news releases and other publicity on rate case proceedings. An increasing awareness of responsibility and self-discipline are seen as the emerging characteristics of the modern public relations practitioner in the utility field.

By JAMES H. COLLINS*

Two interesting changes in public relations work have been brought about by the postwar growth of utilities.

First, that work has increased beyond anything known before the war.

Second, it has acquired a more rigid censorship.

What with inflation, rising costs, rate increases, and similar postwar problems, utility companies have had to do a great deal more talking about themselves, more explaining to the public, their customers and employees, their stockholders, financial sources, and others. Management finds that it has as many relatives as a Hollywood movie mogul.

More and more glass pockets in which to do business.

*Professional writer, resident in Hollywood, California. For additional note, see "Pages with the Editors."

At the same time, there has arisen a caution about what can be said, a checking and double checking of the relations man's work, that hampers him in doing his job—and is ultimately bad for good relations.

Good company relations are based on news. Often, there is added the desire to "educate" people on the intricacies of the business, a feeling that if they had a better understanding of economics, finance, management problems, and similar dry-as-dust subjects, life would be easier. But people want chiefly to know whether the company in doing a good community job, in spite of what it insists are tough problems; whether its rates are fair; whether it treats its employees well, and is a good citizen. Publicity and propaganda are discounted. The headline-scanning public wants to know if the gas or power company is good to its mother. And so it reads

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an interesting news release about its plans for expansion, or improvements in service—all fact, no company ax to grind.

THE public relations man is most likely to be a newspaperman, with reporting and editorial experience. In which case, he will have a thorough understanding of the public's interests, and be first of all on the public's side, no matter how loyal to his company. He will know how to find news, distinguish it from publicity and propaganda, which he instinctively distrusts; to make the most effective use of news in different media and ways; be expert in presenting it so people will read.

There is an old saying that everything gets better with age except news. News is what the public wants to know, today. The skillful relations man knows that newspapers will not wait. News is different from company policy, which may be deliberate. An immediate situation arises, the public wants to know what the company is going to do about it, editors phone in to find out, the efficient relations man must get a quick decision. The public waits.

Not so long ago, relations work was a one-man affair, in the hands of a newspaperman, guided by an executive who understood newspaper requirements. The relations man was spokesman for the company in matters of public interest, prepared his news releases or press statements, and checked with his boss. The latter would stop dictation to glance through a release, or listen along the corridor on the way to lunch.

"That sounds all right to me," he would say, or perhaps advise checking with a technical department on some technical matter. It was a simpler world, company-

wise. Mistakes were made, but were also lessons, and they did not have the consequences that can follow mistakes today. To the relations man whose experience goes back prewar, that was a world to remember nostalgically, though he knows that it cannot be returned to. He may think that it could be a pattern for reorganizing relations work of today, to solve some of the problems that have come with post-war growth.

IN those happy days, news releases did not have to be checked against rate increase applications, something practically unknown in utility affairs before the war. If utility rates were changed at all, they were lowered, and the public was not greatly interested.

Today, applications for rate increases are a major activity in most utility companies, and greatly affect relations work. Many executives are constantly engaged in the preparation of rate data. Statistics on operating costs, plant values, rate of return on investment, are prepared in advance of hearings, and as the case comes up before regulatory bodies, other data may be asked for. The executive assigned to rate cases is, in effect, sentenced to a long term of hard drudgery, and may well sigh as he remembers the active management work that he used to do.

Rate hearings are usually long, especially in the case of large utility companies. All sides of the matter have to be heard, and weighed.

Besides the detailed work involved, rate cases have created apprehension—in fact, fear. This feeling among utility people is seldom voiced, but it exists, and is well known. Basically, regulation protects the public interest. All sides—and often

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no side at all—will have their day in court. People with special axes to grind turn up at hearings. Their pleas may have little bearing on the case, yet at the same time have human interest, and so get into the news.

RUNNING news reports of rate cases generally distort the picture, and are almost never good relations for the company. For this situation there seems to be no remedy. The utility company applying for a living wage is in the same stewpan as the hireling who musters up courage to hit the boss for a raise—with the difference that it becomes the business of Tom, Dick, and Harry. The boss likewise says that he will think it over, which thinking period corresponds to the long waits for a rate decision. There seems to be no blame attached to anybody. It is bound up in the regulatory system upon which utility services are rendered, which has been found the best system, and regulatory officials like it as little as utility people. The basic trouble is growth—the country continues to get more people, and they want more and more things, services, conveniences.

With such a state of mind existing, the relations man understands why he has been subjected to a new censorship.

The fellows who live with rate cases, and the preparation of data required in presenting and proving them, are technical men, and they are anxious that no error or misstatement of fact creep into their data which might be picked up and cited against the company. For their data stand as official.

They naturally do not understand news, and the old easy working arrangements whereby the relations man had his releases cleared by one vice president is impossible. There are too many delicate points being watched by specialists. The word is "protocol," the situation calls for striped pants.

So, the relations man's news release, written for publication tomorrow morning, goes to A, who checks the statistics, and to B for legal scrutiny, and to C for financial oversight, and to D who has the rate case in hand, and so on. It may be necessary to check back and forth between them, and meanwhile the news interest evaporates, and the company gets a name for evasiveness in its dealings with the public.

Relations people feel that management has not yet seen that such new "censorship" loads on the technical executives a



G"Good company relations are based on news. Often, there is added the desire to 'educate' people on the intricacies of the business, a feeling that if they had a better understanding of economics, finance, management problems, and similar dry-as-dust subjects, life would be easier. But people want chiefly to know whether the company is doing a good community job, in spite of what it insists are tough problems; whether its rates are fair; whether it treats its employees well, and is a good citizen. Publicity and propaganda are discounted."

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burden of reading, and responsibility, quite outside their regular work, and something for which they are not fitted. To them, exactitude is all important. They do not understand news. Besides reading and revising they may undertake to translate news statements into their own technical language. The language of the news release, written for the headline-scanning public, comes back beautifully qualified in technical lingo—and, for readability, too late, and dead.

An even greater cause of apprehension these days are labor relations, as they have developed since the war. The subject is highly controversial, but like rate increases, is based on inflation. People in jobs are under economic pressure, and apply pressure in turn, and these pressures are constant upon the executives who have to deal with collective bargaining. They are even more anxiously concerned about statements that may later be cited against them in labor dealings.

There is an ironic circle here.

We have built up an economy that produces so abundantly that it piles up surpluses, and with surpluses comes unemployment.

The familiar remedy prescribed for overproduction is, to insist that the consumer must consume more. Raise the standard of living, project the curve so that in ten years, twenty years, it shall be so much higher.

Our productive system has facilities for making goods more and more alluring; our financial system provides money to purchase out of income; our promotional facilities are matchless.

Consume more, so there will be employment for all, sell more!

The consumer is willing, and only asks higher wages to provide the wherewithal, and attains them through organization. The unorganized consumer is priced out of the higher living standard, the innocent bystander in the situation.

Whatever may be the economic merits, whatever the ultimate outcome, this situation puts constant pressure upon executives who have charge of labor dealings. It is pressure more severe than that created by rate dealings. It is charged with apprehension, and fear, and it brings its own kind of censorship on the relations man.

THE relations man understands the difficulties of executives dealing with these problems, but feels that their oversight of his work could be simplified, speeded up, and a heavy load of unnecessary reading lifted from the shoulders of the technical men. This might be done—will ultimately have to be done—by clearly formulating company policy on rate, labor, and other problems, and centering the censorship in one responsible executive, as of yore. His job will be more complex, but he will be able to make prompt decisions, refer doubtful points to technical people in a summary, eliminate their loads of "required reading," and get relations material on its way while it is live news.

There will still be some sleeping dogs, but undoubtedly much of the waste effort now involved in censorship can be done away with. That this has not been done already is due to management's occupation with postwar backlogs and problems.

Part of the employee relations picture nowadays, with the increase of labor bargaining, is the reading matter provided for

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Educating the Employee

“PART of the employee relations picture nowadays, with the increase of labor bargaining, is the reading matter provided for employee magazines, news sheets, bulletins, rack reading, and other purposes. There has been a great increase in such material since the war, as management problems have multiplied, with inflation and rising costs of living, as well as company operation. Management feels that if people on payrolls knew more about costs, rate regulation, taxes, competition, finance, sales, and basic economics as they bear on jobs and pay checks, there might be better feeling in the organization, more patience in solving problems, less seeking for scapegoats, more company loyalty of the kind that creates good will for the company.”

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EMPLOYEE relations material ranges from news of promotions, service awards, retirements, marriages, births, hobbies, and the like, up to articles about the way people in other departments do their work; descriptions of new equipment and methods; glimpses into the future of the business; articles about the American way of life; the advantages of free enterprise; the history of our country, its leaders, its opportunities—and so on

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up to a line beyond which management must not step in talking to employees.

That is the line where management must not attempt to influence employees in bargaining matters. It is not necessary to dwell upon the apprehension and mischief involved here. It sets up still another form of censorship.

Then, people in jobs nowadays have new interests, about which they ask questions that are not easy to answer.

Suppose employment is changed, or family problems arise—how about life insurance partly carried by the company, and pensions, and fringe benefits of various kinds. Jobs have become complex; new phrases like "take-home pay" and "before taxes" are debated in shop and family. Answers to such questions often constitute company statements on policy. The friendly vice president running a question-and-answer corner in an employee magazine has more than once found himself in hot water, and quit his corner.

A TIMELY example of such difficulties in employee relations is stock ownership. Yesterday, stock in the company an employee worked for was sold on payroll deductions, often at a favorable price, amounting to company participation in the purchase; was regarded as a convenience to thrifty employees who wished to invest their savings that way. Today, stock ownership has got tangled up with bargaining, and is a "hot" subject for the relations man. Out of a clear sky, almost in a matter of months, a noncontroversial question takes on censorship.

Stock ownership has new management advantages, in these days of proxy strategy, besides the feeling that employees will take a greater interest in the com-

pany they work for if they own stock, and share in its prosperity.

That they do take an interest is shown in questions like this:

"I notice by the financial pages that some companies pay higher dividends than ours. Would it be a better investment for me to buy some other stock out of my wage deductions? Why doesn't the company allow the purchase of other stocks on this plan?"

This is not a fanciful question. The company is not asked what other stock it would recommend, but stock ownership stimulates interest in the daily quotations, and employees want to know, and answers could become commitments. And so censorship spreads over another field, and while such questions have often been answered verbally, in meetings, a printed answer is difficult to get.

To the relations man, there seems to be a sufficient answer. The company's stock is the one that management knows best, and for which it is working. Employees who acquire stock are presumably working to the same end. So it is a good investment for them. Company funds could not be used to finance other investments—for such securities there are ample facilities for instalment purchase through investment houses.

OUTSIDE the utility industries, this new censorship cramps the relations man. There is no rate regulation, true, but there is collective bargaining, and the hush-hush involved in government contracts.

Comparing notes with fellows in these fields, the utility man may decide that his censorship is easier to work under. For when his bosses are satisfied that things

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are fit to print, he gets the green light, whereas the relations man in other fields is still hampered by military security.

Finally, relations work is affected by something more than censorship—the current trend in management away from "specialists," toward "generalists."

This is another consequence of postwar growth.

As utility customers doubled in number, and organizations had to be enlarged correspondingly, it became necessary to find new executive ability. Prewar organizations were rather stable and comfortable. They were built upon specialists. Technicians managed the technical departments, sales ability was productive in commercial departments, and so on; these specialists trained others to succeed them, and it was a satisfactory setup for those times. With good executives in all departments, the president of the company would say he had little to do himself.

BUT when postwar growth made sudden demands for more managers, and especially those who had general ability, who could be moved around where they were needed, and tomorrow shifted elsewhere, the president of the company really had to go to work.

Hence, in many lines of business today,

there is rather a feverish concern with management ability.

What constitutes the kind that can be moved from post to post and be counted upon to function perfectly, whatever the problems or the work?

How do you recognize, hire, promote, and hang onto it?

What are its wage scale, take-home pay, incentives, fringe benefits?

These are questions right up to the front. There is discussion, research. Management is assured that in the past it went overboard on specialists, and under guidance is shifting people around, to make generalists of them.

To counsel on generalists, we now have specialists.

Eventually, management will discover that this quest for generalists has a specially unhappy effect upon relations work—even more than on other departments.

For relations work requires a special kind of ability.

THE relations manager needs an assistant. He hires a promising young fellow who has worked on a newspaper, or taken journalism in college—who has definite writing ability, printer's ink in his veins.

It may take a year or two of training



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to instill company policies into this recruit, and teach him the company "Who's Who," the executives and departments to whom to look for news, the ways in which news can be presented, the technical checks that will be necessary, the sleeping dogs that must be avoided.

He becomes a good hand.

BUT just when his training should begin to pay dividends, management decides that he is promising material for all-around executive training, and transfers him to field work, or a branch office, or an engineering department.

As a replacement for the relations department, another promising youngster is assigned, who has had general experience in several other departments. He has never written anything, has no aspirations that way, and could probably never be transformed into a relations man—simply not possessing the makings. Or he does become a relations man; presently he will be shifted again.

The relations man recognizes that today's expanding business makes generalists necessary. But there are dangers in

developing executives capable of stepping into a given department and taking hold of highly specialized work. In time, management will undoubtedly realize that some specialists are needed.

It may well be that the generalist himself is a specialist!

The relations man protests that his work is a specialty. His job is to get good people trained in the principles of relations, and shoulder responsibility for getting the work done as free from hindrances as possible.

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It is definitely a specialty, and since the war has been divided into subspecialties.

The relations man admits that he may not have sold himself to management, but what with the changes that have come about, imposing his new censorships, his company more than ever needs skillfully promoted understanding—especially if it is a regulated company.

“We can see no more reason why the government should control the power business than that it should build its own railroads, truck lines—and publish its own newspapers.

“Newspaper publishing has become such an economically hazardous business that many of the nation's substantial cities have only one.

“Fears have been voiced that this 'monopolistic situation' is a danger to our democracy.

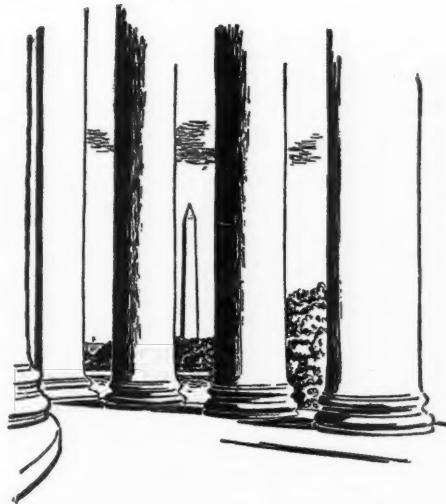
“How soon will the government ownership crowd demand that the government establish and operate a daily newspaper in all cities not now having competition?

“Such tax-financed publications might even run the privately owned press out of business and we could have a government-owned press.

“That certainly would be nice for the party in power.”

—EDITORIAL STATEMENT,
Grants Pass (Oregon) Daily Courier.

Washington and the Utilities



Fast Start on Gas Bill?

ADVANCE signs still point to a quick getaway in the Senate on the House-approved Harris Bill (HR 6645) shortly after the new session of Congress opens next January. It will be recalled that this bill to exempt the independent natural gas producers from the full jurisdiction of the Federal Power Commission was approved and reported by the Senate Interstate Commerce Committee at the last session.

This leaves the bill on the Senate calendar subject to call by the very sympathetic Senate Majority Leader Lyndon Johnson (Democrat, Texas), now likely to resume, more or less, active duty as boss of the Senate—a post which he had to relinquish during his heart attack last spring. He is expected to get the assistance of the equally sympathetic Minority Leader Senator Knowland (Republican, California).

With the bipartisan leadership thus poised, the promoters of the bill are in a position to bring it right out on the floor as soon as the opening formalities and any other pressing paramount business are disposed of. The theory of this "blitz" strategy would appear to be to get an ac-

complished fact before the opposition can crystallize. A further psychological advantage would be to get the bill on the statute books and all the resulting impact cleared away as much as possible before the campaign starts. With almost a year before the general election, the danger that the gas bill might become a political issue might thus be lessened.

The opposition strategy, of course, would be to block any such fast getaway in the Senate and stall the bill along in the session as long as possible, so that it *will* run into the period of active campaign "politicking." In other words, the chances of passage of the bill will diminish with each day it is delayed.

At this writing it would appear that the proponents are further along with their organization than the opposition. Opponents of the bill, once organized along equally bipartisan lines, could muster at least twenty votes in the Senate. And that could be enough to doom the bill by argument alone if the bill were delayed long enough. But no definite leadership or master mind has yet become noticeably effective in the opposition

PUBLIC UTILITIES FORTNIGHTLY

ranks. If it exists at all, it is in the formulative stage and it will have to get a move on if it is to serve as a brake on the fast-moving plans of the bill's sponsors.

OF course, even early passage of the bill will not guarantee that the so-called "gas issue" will not become involved in the campaign. On the contrary, it is almost certain to become an issue with some of the candidates for office, in some areas next fall, regardless of what the Senate does with the bill.

One powerful argument of the opponents will be based on the effect of even the threat of federal regulation of gas production so far. Government regulation of natural gas producers has been followed by "an encroaching paralysis" in the industry, the Independent Petroleum Association of America was told at a recent meeting in St. Louis by its president, W. M. Vaughay of Jackson, Mississippi. Vaughay told the association that in 1954—"the first year that the shadows of government control fell across the industry"—new gas reserves brought in use for interstate shipment were about one-third of the 1953 total.

In order to meet the demand, he said, the carriers had to draw on their reserves, and now face the liquidation of these stores. Vaughay added that the rate of completion of gas wells this year is running 12 per cent behind last year. He urged oil men to work for passage by the Senate of the House-approved bill which would free natural gas producers from federal controls.

The bill, Vaughay said, would wipe out the effect of a 1954 Supreme Court ruling which broadened the government's regulatory power over the industry. However, if the court decision stands, he added, "then, Katy, bar the door, because Socialism is ready to sit down at the head of the table."

The association's supply and demand committee predicted that total petroleum demand in 1956 on the American oil industry would be 8,997,000 barrels a day, an increase of 3.4 per cent over 1955. Domestic oil demand will increase by 4 per cent next year, but will be partly offset by an estimated decrease of 9.6 per cent in exports, the committee said.

FPC Gas Developments

MEANWHILE, the FPC, caught in the somewhat frustrating position of being required to wash windows while its jurisdictional house is on fire, is trying to make progress on the gas producer cases. FPC Chairman Kuykendall told a recent panel of state commissioners at the National Association of Railroad and Utilities Commissioners' convention in Asheville, North Carolina, that as far as his commission was concerned, "The practical question before us is not whether the producers' prices should be regulated, but how they should be regulated."

He expressed the growing impression of Washington observers that if legislation is passed by the Senate during the next session, it "will not completely exempt the producers from federal regulation."

Others appearing on the panel supported the familiar pro and con arguments, leaving open the question of regulatory boundaries in the natural gas field.

FPC has postponed action on two requests to dismiss independent producer rate increase applications, pending presentation of further evidence. The motions to dismiss were made by customers of Transcontinental Gas Pipe Line Corporation and FPC staff counsel on grounds that the producers had failed to discharge the burden of proof that the proposed rates would be just and reasonable.

The commission stated that it would

WASHINGTON AND THE UTILITIES

ordinarily have dismissed the petitions for the rate increase because the evidence presented did not show that the requested rates would be just and reasonable, but said it would allow further hearings before examiners beginning November 28th, "solely because this is the first series of cases involving the rates of independent producers" on which FPC has been called upon to act. The producers involved are Union Oil Company of California, Union Oil & Louisiana Land & Exploration Company, Morris Rauch, and Bel Oil Corporation in one case, and Sun Oil Company, E. J. Hudson, and Maracaibo Oil Exploration Corporation in the other. In a third case, FPC declines to rule on a similar motion for the time being. The delay may run the cases into the congressional session.

An FPC examiner also has ruled that 14 independent natural gas producers must obtain permission from the commission to abandon gas deliveries to the Texas Illinois Natural Gas Pipeline Company. He said that the producers must be classed as natural gas companies because they sell their gas to an interstate pipeline company for transport to other states for resale, and must apply to FPC to abandon such service.

The producers had contended that they were exempt from the Natural Gas Act under a provision supposedly exempting the production or gathering of natural gas from FPC jurisdiction. Unless the examiner's decision is appealed or the commission steps in to review the case, the ruling becomes final at the end of thirty days.



The Anti-Hoover Commission Hearings

THE recently expired Hoover Commission is the latest target of House subcommittee "investigating" hearings which

have assumed a very definite partisan and antiutility character. Sessions of the House Government Operations Subcommittee on Water Resources and Power in the Tennessee Valley Authority area still followed the propublic power pattern which has characterized them to date.

The "study" of Hoover Commission recommendations with regard to TVA, conducted by Subcommittee Chairman Jones (Democrat, Alabama), has been marked by carefully arranged attacks on the commission by outstanding public power advocates, but by almost total absence of rebuttal testimony. The procedures used by the subcommittee during hearings in Muscle Shoals and Nashville were obviously aimed at discrediting not only the Hoover Commission, but also the administration and the private power companies.

The apparent goal is to minimize any popular support for the recommendations of the commission and to discourage any pressure which might otherwise be put upon Congress to adopt the Hoover group's recommendations. It will be recalled that last May the commission generally approved proposals of its Task Force to halt TVA steam plant expansion and turn its rate-fixing powers over to the FPC. Nonpower-producing functions would either be eliminated entirely or be shifted to other federal agencies. Power revenues would be paid into the Treasury as miscellaneous receipts, and TVA would be limited to annual congressional appropriations for its cash operating expenditures.

WITNESSES before the subcommittee last month were all strong champions of TVA. Senators Hill and Sparkman (both Democrats, Alabama) and Governors Clement of Tennessee and Folsom of Alabama joined in criticism of

PUBLIC UTILITIES FORTNIGHTLY

recommendations that would allegedly strip "TVA of flood-control and other nonpower activities; prohibit construction of new steam plant capacity; revive Dixon-Yates type deals by forcing TVA to supply growing power needs from surrounding private power companies; and force up rates by legislative action."

The Budget Bureau Replies

ROWLAND R. HUGHES, Director of the Bureau of the Budget, attempting at least to get a telegram into the subcommittee's record for the other side, wired Representative Jones a reply to a telegram sent by Jones regarding the charges that the Budget Bureau was trying to push Kentucky utility companies into the Cumberland project picture. Hughes said in his wire:

From the reports it appears that on the basis of the statements of one man you termed the part played by the Budget Bureau in that meeting as "shocking," "reprehensible," "outrageous flouting of the will of Congress," without making any attempt to find out whether the story is true, which could have been done very simply by checking with the Budget Bureau. That is an astounding procedure.

Specifically these are the portions of your telegram based on the allegations of Charles M. Everhart which are in variance of the facts: (1) Our representatives *did not* suggest at any time that the Kentucky Utilities Company be contacted for the purpose of arranging a partnership project; (2) *no* mention was made of a "nominal fee for use of the water," whatever this may mean. Furthermore, I would also like you to know that, contrary to the statements attributed to you in the press, it *was not* suggested that the project's approval de-

pended on private utility participation or that "a private utility take over a possession owned by the federal government."

So that the record may be straight, it is this administration's policy to encourage whenever possible local participation—whether by private or public bodies as may be locally desired—in water resource projects. In line with the guiding principles established by the President, in our review of budget requests we consider whether it is necessary for the federal government to provide the entire financing or whether there are means of securing participation, in whole or in part, by local interests.

PUBLIC power members of the House Government Operations Subcommittee have tried to rectify their tactical mistake in refusing to let the Georgia Power Company testify during recently suspended hearings on Interior Department power-marketing policies. In answering newspaper criticisms of subcommittee "bias," Chairman Chudoff (Democrat, Pennsylvania) "admitted" that the subcommittee had neither found nor tried to find evidence of improper or illegal influence exerted on Georgia co-ops by Georgia Power Company.

Neither the subcommittee chairman nor other subcommittee members, however, attempted to withdraw insinuations made during the public sessions that the company tried to "blackjack" the co-ops into the surrender of "preference" rights to federal power from Clark Hill dam. Rather than accept admissions of this sort, Harllee Branch, Jr., president of the company, called them "an altogether inadequate substitute" for the denied right to testify which he said has caused the company "irreparable damage."

Wire and Wireless Communication



SAGE OK'd

COMPTROLLER General Joseph Campbell has given the Air Force permission to go ahead with plans for its multi-billion-dollar "SAGE" aircraft warning system, provided it seeks specific congressional authority for the project next year. Campbell had previously ruled that the Air Force lacked legal authority to enter into a long-term contract with private firms to provide communications for the semiautomatic warning system.

Campbell, in a letter to Defense Secretary Wilson, stuck by his previous position that the Air Force does not have the authority under present law to enter into a 10-year contract with the American Telephone and Telegraph Company for the project known as SAGE. Campbell said, however, that he recognizes that the program requires a "lead time" of planning and construction before the project can be put into operation.

"In the circumstance, and since the matter has been presented to interested committees of the Congress in a general way, we will take no further action in the matter provided it is presented to the Congress again," Campbell wrote Wilson.

Wilson, in a letter to Campbell, said "the Air Force will proceed with the SAGE project in accordance with this un-

derstanding." Wilson, at the same time, gave assurance that the matter would be "presented to the Congress for the purpose of securing express approval as soon as practicable after the reconvening of Congress."

Arguments on Technological Unemployment

THE CIO Communications Workers of America fears a 200,000-job decline in telephone industry employment by 1965 unless a "tremendous business increase" offsets the effects of automation. The prediction was made by Joseph A. Beirne, Washington, CWA president, in testimony on October 25th before the Subcommittee on Economic Stabilization of the Joint Congressional Committee on the Economic Report. The subcommittee, headed by Representative Wright Patman (Democrat, Texas), was hearing government, labor, business, and technical testimony on the impact of automation on America. CWA purports to represent over 300,000 communications workers in the United States, Canada, and in Hawaii. The bulk of the union's membership is in the telephone industry.

Beirne claimed that there is a current rate of telephone industry employment

PUBLIC UTILITIES FORTNIGHTLY

decline, and that it would result in the loss of 100,000 to 115,000 jobs by 1965, but that "a more realistic figure" should assume "an accelerated rate" which would probably result in 200,000 fewer jobs by that time.

Beirne submitted tables to the committee covering dial conversions in two states—Michigan and Ohio—over the period from November, 1949, to the end of 1954. These figures show that in exchanges where cutovers have taken place in Michigan, employment has dropped 80.7 per cent. In Ohio in exchanges where dial conversions took place during this period, employment dropped by 54.6 per cent.

LATER on in the hearings, the subcommittee heard a contrary viewpoint from a Bell system official, who took the line that technological equipment would create jobs, not displace them. Clifton W. Phalen, president of the Michigan Bell Telephone Company, said there will be a continuing gradual increase of all sorts of automatic equipment and other improvements in telephone service. He said dialing for long-distance station-to-station calls will be available ultimately to nearly all telephone customers. But Phalen told the joint congressional subcommittee that the change will mean more rather than fewer telephone jobs because there will be more customers. The subcommittee is studying the effect of automation on the American economy.

Phalen, who spoke for the whole Bell telephone system, said five years from now more than 95 per cent of Bell telephones will be dial-operated, in contrast with the present 85 per cent. He said the new system, in which a customer may dial a number in another city, is now used in about one-fourth of all calls outside local areas. And he said it ultimately will be connected with nearly every telephone. Despite the

increased use of automatic equipment, Phalen said few employees are laid off. He said the Bell system tries to give adequate notice so that the slack can be taken up by normal resignations and there is time to train workers for new jobs.

CIO President Walter Reuther admitted that technical improvements and more scientific methods could usher in a new "age of abundance and freedom." But his short-range corrective was a shorter workweek. He called for progress towards a 4-day thirty to thirty-five-hour week, earlier retirement age, and other worker benefits.

ANOTHER witness, Dr. Cleo Brunetti, a research director for General Mills, told the Senate-House Economic Subcommittee investigating automation, that a labor-saving electronic machine made by his company made two new jobs for every one displaced. He testified that the first "autofab" electronic assembly machine produced by his company displaced 150 workers but created 291 new jobs in the electronic industry and 200 more in distribution and retail services.

A third witness, Marshall G. Munce, chairman of the National Association of Manufacturers' industrial problems committee, decried the picture often painted of automation as a robber of workmen's jobs and asserted that in the long run it produces more and better jobs. This is particularly true, Munce said, in the telephone, chemical, paper, and oil industries. He declared that since 1920 the telephone industry has experienced a 130 per cent over-all increase in employment despite the widespread introduction of the dial system. Instead of wrecking the economic system by producing hordes without pay envelopes, Munce said, automation really will produce machines to handle the "boring, stultifying jobs" and open "new vistas

WIRE AND WIRELESS COMMUNICATION

of economic accomplishment and satisfying living."

Dr. Brunetti pointed out to the committee that an industry does not rush blindly into the installation of machines which might threaten its very existence. It looks to new automatic machines which while cutting costs will also create greater sales and greater markets, and he told the committee it need not fear industry is going to wreck itself in the process.

"Industry," Brunetti said, "depends upon good customer health, represented by purchasing power. To those who fear that this purchasing power will be drained away because of fewer jobs, let me say that industry will not invest in machines that automatically pull the rug from under it."

The NAM spokesman said that the word "automation" is new but that the process is as old as industry and that it has been going on throughout human history. He admitted that the process does produce displacements and problems, but these can be solved, he said.

ANOTHER industry witness, Ralph J. Cordiner, president of the General Electric Company, said it is seldom that a person is put out of work by an improvement. In the past twelve months GE has hired about 40,000 employees to replace those who quit, died, retired, or left for other reasons, Cordiner said. He said his company spends up to \$40,000,000 a year to train or retrain employees.

Cordiner said both government and industry have a responsibility to help families through transitional periods of unemployment caused by technological change. He noted that all the states provide unemployment compensation and that except in Alabama and New Jersey, the entire cost is borne by employers. "Just this year 34 states enacted new laws in-

creasing unemployment compensation benefits, which our company thoroughly believes in and supports," Cordiner said.

British Rates Going Up

AMID boos from the Labor party benches, Chancellor of the Exchequer Butler outlined a host of new taxes calculated to make Johnny Bull pull in his belt and live less high on the hog during the coming year. The most outstanding feature of the bill was a boost of 20 per cent in the purchase (sales) tax of automobiles and other consumer appliances. There was also a 5 per cent raise in the tax on dividends and a thumping big increase of more than \$72,000,000 in proposed increases in the rates charged by the British Post Office for postal or telephone services.

Telephone call charges are going up approximately one-third on local calls. Telephone rentals—a system peculiar to British telephone service—are also going up. The passage of the bill would affect all telephone service in the British Isles, including northern Ireland, totaling more than 6,000,000 telephone stations. It might be roughly estimated that all general telephone rate increases in the United States since such utility rates started to advance in 1946 would not amount to more than an over-all average increase of one-third. The Exchequer's bill of October would make that much of an increase in one bite, although there have been earlier partial and regional increases in the British telephone rate structure.

It was not clear from Butler's statement whether the telephone rate increases were "for revenue only," or part of a general anti-inflation curb on domestic spending within the United Kingdom, or whether they are designed to bring the government telephone service revenues more into line with the cost of service.



Bogey of Public Power Depresses Stocks of Upstate New York Utilities

RECENT developments in New York state have depressed market prices for stocks of the leading upstate utilities—Niagara Mohawk Power, New York State Electric & Gas, and Rochester Gas & Electric. Niagara Mohawk, for example, recently dropped to 30½ (range this year 36½-30) but later recovered to 32. The decline may have been accelerated by an article in *Barron's* for October 17th under the heading "Embattled Utilities—Public Power Is Gaining Strength in New York State," from which the following is quoted:

The three New York state companies as a group sell at only 14.3 times latest reported earnings, against 15.5 times for [three] Ohio companies, 16.1 times for [three] Illinois companies, and 16.4 times for [three] California companies. . . . Investors, who demand a return of 4.9 per cent from the New York utilities, are willing to accept 4.7 per cent in Illinois, 4.6 per cent in California, and 4.4 per cent in Ohio. In particular, large institutions which are quick to detect such trends, appear to be adopting a more cautious attitude toward investments in New York state

Financial News and Comment

By OWEN ELY

utilities. A number of the larger investment trusts, for example, sold substantial blocks or completely eliminated their holdings of one or more of the New York utility companies in the first six months of 1955.

It is unfortunate that institutional investors' fears about public power dangers in New York state—which were based on a rather small foundation of fact and rumor—came to a head at a time when two of the three upstate utilities were planning to do equity financing. New York State Electric & Gas offered rights on a 1-for-10 basis to stockholders of record October 18th, and Rochester Gas & Electric on October 13th asked permission from the state commission to offer stock on a 1-for-7 basis. Thus, the scare over the possible inroads of public power and the threat of harsher regulations, by depressing these stocks at this time, have

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probably added to the cost of the equity financing and thus penalized present stockholders.

THREE is, of course, nothing specially new with respect to the long-standing contest over who will develop about 1,000,000-kilowatt dependable power¹ at Niagara Falls—Washington is no longer anxious to handle the job, so the issue remains between New York State Power Authority, headed by Robert Moses, and the group of five New York utilities, headed by Niagara Mohawk. The authority is already at work constructing the 700,000-kilowatt St. Lawrence project at Massena (about 250 miles east of Niagara) but Mr. Moses, despite his many irons in the fire, would like to handle Niagara also. Under the 1950 treaty with Canada, work could have started nearly five years ago (Canada has already completed her half of the project) but Congress tied a provision to the treaty reserving its right to determine who should build the plant—and has not been able to decide the matter thus far. Niagara Mohawk feels that it is entitled to do the job, since (unlike St. Lawrence) this is strictly a power plant rather than a multipurpose project. Niagara Mohawk operates the existing plants at the falls and has completed elaborate plans to build the new project without disturbing the scenic beauty of Niagara.

In July, 1953, the House of Representatives passed a bill by a vote of 262 to 120, authorizing private construction and operation of the Niagara Falls redevelopment project. However, the Senate took no action, making it necessary to reintroduce the legislation in January, 1955. Neither house has acted on this as yet,

and while it appears likely that the House may re-enact the bill, the situation in the Senate remains uncertain. Senator Lehman has introduced another bill backing the State Power Authority, and public power adherents hail this as an opening wedge for development of the old "rate yardstick" idea. Meanwhile, however, a note of dissension has crept in: Robert Moses, irked by the delay, recently proposed a court test over the validity of the amendment to the treaty; he would like to refer the issue to the Federal Power Commission as soon as possible, believing that under the law the commission would be required to allocate the job to the authority. Senator Lehman and Governor Harriman do not favor these tactics, however. (See, also, page 902.)

HOWEVER, it was probably not so much the issue over the Niagara Falls plant which caused the market weakness in the stocks of the upstate utilities, as a new development in connection with the St. Lawrence project. While power from the St. Lawrence will not be available before 1958, the allocation of that power to public agencies which retail or consume power, as well as the heavy industrial consumers such as Alcoa, must be planned in advance. About one-fifth of the 700,000-kilowatt dependable power has been allocated to the city of Plattsburg (which now buys at wholesale from New York State Electric & Gas), the U. S. Air Force base at Plattsburg, and the state of Vermont. The latter has asked for 100,000 kilowatts under the provisions of the State Power Authority's FPC license, which requires that power be made available to neighboring states within economic transmission districts.

In order to service these three wholesale power customers it will be necessary to build some new transmission lines. Ni-

¹Barrow's mentions 1,600,000 kilowatts, which is the proposed "installed capacity." However, reliable or firm power will be considerably less, it is understood.

PUBLIC UTILITIES FORTNIGHTLY

agara Mohawk and New York State Electric & Gas have made detailed proposals for building new facilities and "wheeling" the power from Massena to its destination. In a 16-page document the two utilities estimated the net cost of transmitting the power (including capital cost for construction) at 2.736 mills compared with the corresponding cost of 2.971 mills under the authority's plan 1-A—despite the added tax load for the utilities. In addition to the estimated saving of about 8 per cent, the utilities feel that they can furnish more reliable service in the event of failure of the St. Lawrence generation.

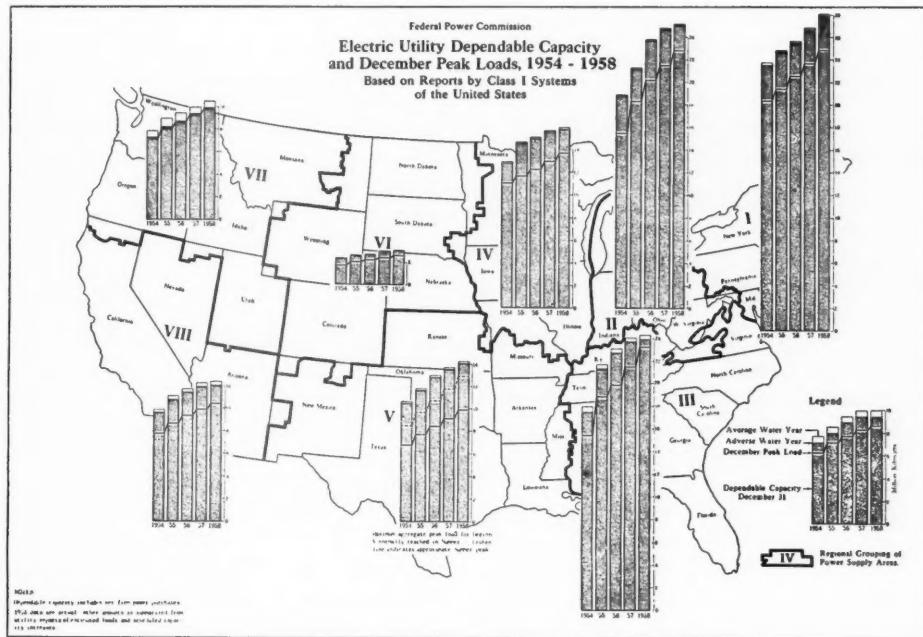
THERE was a misleading newspaper report that Governor Harriman had "ordered" the authority to construct the new lines. Actually, the governor only indicated that he would like to see the authority do the job. Under the statutory procedure the authority must complete public hearings on proposed contracts for the sale of power, including provisions for transmission, before such contracts may be finally agreed to. Thereafter, the record of the hearings is submitted to the governor who must then within sixty days indicate his approval or disapproval. The authority initiated hearings on October 17th and it is understood that these have now been completed. The utility companies maintain that the authority lacks statutory power to build the transmission lines since it must first make use of any facilities now available or which may be made available. Hence, the possibility remains that if the authority (with the governor's approval) decides to go ahead, the utilities might take the issue to the courts.

Of the remaining St. Lawrence firm power, some 177,000 kilowatts are already under contract to Alcoa at Massena (plus 67,000-kilowatt interruptible power), so that nearly half of the projects'

primary output is already allocated. Negotiations between the authority and another large industrial customer of Niagara Mohawk—Jones & Laughlin Steel—are also reported to be under way. With over 8,000,000 kilowatts of installed private power capacity already existing in New York state (plus about 5,000,000 in New England), and with indications that these facilities may have to be almost doubled by 1965, it is obvious that all the St. Lawrence power can be readily absorbed without any material effect on the state's power economy. In fact the power authority already has made inquiry of Niagara Mohawk regarding the possible purchase of some of the power, and the company expects to negotiate a purchase contract. The company will then gear its own construction program to the availability of such power in 1958 or later. Niagara recently began construction of a 200,000-kilowatt steam unit in Buffalo.

IT is possible that some investors were frightened into believing that Governor Harriman and Bob Moses were initiating an all-out fight to compete with private power in New York—reminiscent of the fight between TVA and Wendell Willkie before the Commonwealth properties in Tennessee were sold to the authority. But, obviously, any such proposal would require new legislation, which could hardly be put through a Republican state senate. Under present laws the authority cannot enter the retail field to compete for residential and commercial business—the most profitable portion of the private utilities' operations.

Another story which apparently frightened investors was the rumor that Governor Harriman might attempt to "pack" the public service commission by appointing another Democrat, giving the Democrats a majority. Two members have al-



ready been appointed by the governor in recent months. But apparently it would be necessary for the commission to request the governor to appoint a seventh member, on the grounds that another commissioner is needed to handle the volume of work. There seems to be no present indication that such a request will be made. In any event, it seems unlikely that a Democratic - controlled commission could do much more damage than was done by the former Republican commission during the years it was dominated by Chairman Maltbie. Moreover, the utilities were thoroughly recapitalized and "purified" by the SEC when they emerged from holding company jurisdiction a few years ago. They are earning only about 6 per cent or less on a conservative original cost rate base, with ample depreciation reserves, and there would be little justification for any drastic "regulation" at this time.

Electric Utility Expansion Plans

THE above chart is taken from the Federal Power Commission's June bulletin "Electric Utility System Loads and Capacity, with Scheduled Capacity Additions, 1955 through 1958." The chart indicates that the electric utilities continue to project substantial growth over the next three years, with corresponding plant expansion.

In some areas, however, where construction over the next year or so is expected to be very rapid (as in the east central and southeast areas) expansion in 1958 is expected to taper off somewhat. These areas are expected to show a heavy increase in construction next year, since peak loads in June were running nearly 20 per cent over last year as compared with 10 per cent in the Pacific Northwest and 5.7 per cent in other areas. It seems

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probable that some of these phenomenal gains in output were due to atomic energy requirements.

Big Future in Air Conditioning Seen for Gas Utilities

HILTING H. CARLSON, editorial director of the *American Gas Journal*, in a recent address before the New York Society of Security Analysts pointed out that some gas utilities have lagged in developing promotional campaigns for appliances. The statistics of the Gas Appliance Manufacturers Association and the Edison Electric Institute indicate the inroads made by the electric utilities into the business at one time controlled entirely by the gas utilities. Formerly, when gas enjoyed more or less of a monopoly in the areas served, there appeared to be no need for promoting sales of appliances, which were considered household "necessities" and sold by plumbers, furniture and hardware stores, etc.

As competition from electric appliances entered the picture, however, the gas utilities discovered that such appliance sales meant the loss of a market for gas and hence it became of vital interest to sell gas appliances. There are still a few gas utilities that are doing nothing about selling or merchandising appliances and such a do-nothing policy is certainly not in the best interest of their investors, since it retards expansion of gas sales. Mr. Carlson presented a 20-point "check list" for gas utilities as a test of sales efficiency.

From the position of the appliance manufacturers, however, the picture is greatly improved, he pointed out. Gas appliances are even setting the pace—the manufacturers of top-grade automatic ranges, water heaters, and laundry dryers are doing outstanding jobs, as indicated by increase in factory shipments of 16 per

cent and 23 per cent in the first nine months, respectively, over last year. Servel, under its new dynamic management, has enlisted strong support from many gas utilities (in direct contrast with the situation only a year ago) as indicated by the rapid rise in sales volume. More can be done if the industry adopts a TV advertising program as is now being planned by an AGA committee.

A MAJOR opportunity for the industry to expand sales lies in the air-conditioning field. Using different operating principles, Servel and Coleman have both developed air conditioners and other manufacturers are considering entering the field. "Gas-operated air conditioners will prove to be a heaven-sent load balancer for the utilities, certainly inside ten years—maybe inside five years," he declared. With the electric utilities, the development of air conditioning is not so simple since it may mean a strain on their distribution systems, from generating station to customers' meters, and there is also the serious problem of adequate house wiring with the growing load of heavy appliances. But with most of the gas utilities the picture is reversed. The introduction of 1,000 Btu natural or mixed gas in place of manufactured gas with only about half the heating content has virtually doubled the capacity of distributing systems.

George L. May, senior vice president of Lone Star Gas Company in Dallas, has stated that if 10 per cent of the company's customers should install 3-ton gas motor air conditioners, the amount of additional gas sales would exceed 8,500,000 Mcf, additional revenues would be over \$5,000,000, and the added load could be served without any additional capital expenditure for gas mains and equipment.

Mr. Carlson remarked:

FINANCIAL NEWS AND COMMENT

Keep yourself advised on the results of the Servel and Coleman test units now in the field under utility surveillance. The anticipated operating economics are very favorable to public acceptance. You will almost certainly find

an upswing in utility summer gas loads, when those and still-to-be-announced gas air conditioners go into production. If I am supposed to make one extravagant statement during these comments, it will be that gas-operated air condi-



OCTOBER UTILITY FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

<i>Date</i>	<i>Amount</i>	<i>Description</i>	<i>Price To Public</i>	<i>Under-writting Spread</i>	<i>Offer-ing Yield</i>	<i>Moody Rating</i>	<i>Indicated Success of Offering</i>
<i>Bonds</i>							
10/5	\$10.0	Pacific P. & L. 1st 3½s, 1985	101.38	.74C	3.55%	Baa	b
10/5	35.0	Public Service Electric & Gas S. F. Deb. 3½s, 1975	102.17	.63C	3.35	A	a
10/20	15.0	New York State Electric & Gas 1st 3½s, 1985	102.38	.70C	3.25	A	c
10/20	8.5	Worcester County Electric 1st 3½s, 1985	102.38	.63C	3.25	Aa	c
10/26	2.5	Wisconsin Natural Gas 1st 3½s, 1980 ..	101.25	.88C	3.30	A	c
10/27	15.0	Long Island Lighting 1st 3½s, 1985 ..	101.42	.62C	3.30	A	c
<i>Preferred Stocks</i>							
10/11	3.0	Pacific P. & L. 4.52%	102	e	4.43		
10/13	.3	United Cities Utilities Conv. 5½% (\$10 par)	10	.85N	5.50		
10/25	25.0	Pacific G. & E. 4.36% (\$25 par)	25.50	.50N	4.27		a
<i>Common Stocks—Subscription Offerings</i>							
10/7	12.2	Central Maine Power	24.38	.95N	5.74	8.5	g
10/18	7.5	Louisville Gas & Electric	47	N	4.26	7.8	
10/19	11.2	New York State E. & G.	37	.52N	5.41	7.8	
10/27	5.6	Indianapolis P. & L.	26.75	.20N	5.23	6.8	
<i>Earnings-Price Ratio</i>							

a—It is reported issue was well received. b—It is reported issue was fairly well received. c—It is reported issue sold somewhat slowly. e—The issue was sold locally and not underwritten. Dealers were paid \$2 on sales. g—The issue was offered to common stockholders on a 1-for-5 basis and to holders of the 6 per cent preferred on a 1-for-1 basis. The employees were to be offered 20,000 shares of the unsubscribed stock. The company was to share in profits on sale of unsubscribed stock. The offering was 57 per cent subscribed, 56 per cent by stockholders, and 1 per cent by employees. C—Competitive. N—Negotiated.

SUMMARY OF OCTOBER FINANCING

<i>Electric Companies</i>			
Bonds	—Sold to Public	\$ 84,624,000	
Preferred	—Sold to Public	28,000,000	
Common	—Offered to Stockholders	35,970,000	
		\$148,594,000	
<i>Gas Companies</i>			
Bonds	—Sold to Public	\$ 2,509,000	
	—Sold Privately	9,000,000	
Preferred	—Sold to Public	275,000	
	—Sold Privately	507,000	
		\$ 12,291,000	
Total Electric and Gas		\$160,885,000	

Source, Irving Trust Company.

PUBLIC UTILITIES FORTNIGHTLY

tioning will soon become the most important load on a distribution system. It will be more important than the heating load because the heating load created a capital problem with its painful peaks. The air-conditioning load will bail out the deep valleys between those peaks, with resultant economic benefits to the utilities—at no cost to them.

He also predicted substantial gains in the use of gas in industrial processing—a heating operation which generally requires precise temperature, automatic control, and high speed. Selas Corporation of America in Philadelphia and other equipment manufacturers have developed machines that are integrated with the production lines and speed co-ordinated with the processing before and after the heating. As an example of the possibilities for gas, he mentioned the case of strip steel for tin plate. Historically, the annealing of this steel was done in batches (before coating with tin) by coils piled inside the heating chambers, which process required 100-125 hours. Now improved gas equip-

ment, operating with a continuous movement of the steel strip at a speed of about 700 feet per minute, has reduced the time to less than two minutes—a bout 1/3,000ths of that formerly required—while the steel strip also has finer metallurgical characteristics. Unfortunately, industrial companies can usually only buy gas on an uninterrupted basis, while heat processing requires a dependable supply.

Mr. Carlson also commented on the fears expressed by some retailers of natural gas, particularly in New England, that due to the steady increase in field prices natural gas may eventually "price itself out of the market." However, he did not think this would be too adverse:

If underground gasification of coal is developed to a high point of economic attraction, the very pipelines that now deliver gas to the distressed distant markets will be used to carry the new gas to the geographical point where the cost factors of it and natural gas overlap. That is a highly desirable balancing situation and leaves the pipelines in a virtual state of protected investment.



DATA ON ELECTRIC UTILITY STOCKS

1954 Rev. (Mil.)	11/2/55	Share Earnings*			Price- Earnings Ratio	Divi- dend Pay-out	Common Stock Equity
		Price About	Div. Rate	Cur- rent Yield			
\$230	S Amer. Gas & Elec.	49	\$2.00h	4.1%	\$2.91**	22%	Sept. 16.8 69% 32%
35	O Arizona Pub. Serv.	22	1.00	4.5	1.37	D8	Aug. 16.1 73 28
9	O Arkansas Mo. Power	23		1.24	5.4	1.65	15 June 13.9 75 30
27	S Atlantic City Elec.	29	1.06b	3.7	1.50	12	Sept. 19.3 71 27
107	S Baltimore G. & E.	34	1.60	4.7	2.06	36	Sept. 16.5 78 40
5	O Bangor Hydro-Elec.	33	1.80	5.5	2.11	D11	Sept. 15.6 85 33
4	O Black Hills P. & L.	26	1.28	4.9	2.13	6	July 12.2 60 26
86	S Boston Edison	56	2.80	5.0	3.12	5	Dec. 17.9 90 53
17	A Calif. Elec. Power	14	.70	5.0	.84	7	June 16.7 83 35
17	O Calif. Oreg. Power	31	1.60	5.2	2.02	19	Aug. 15.3 79 37
7	O Calif.-Pacific Util.	30	1.40	4.7	2.18**	3	Aug. 13.8 64 30
54	S Carolina P. & L.	24	1.10	4.6	1.60	10	Sept. 15.0 69 32
23	S Cent. Hudson G. & E.	16	.76	4.8	1.08	24	Sept. 14.8 70 33
16	O Cent. Ill. E. & G.	25	1.20	4.8	1.92	39	June 13.0 63 33
30	S Cent. Ill. Light	51	2.20	4.3	3.17	5	Sept. 16.1 69 40
46	S Cent. Ill. P. S.	28	1.40	5.0	2.23	38	June 12.6 63 33
10	O Cent. Louisiana Elec.	29	1.40	4.8	1.78	27	Sept. 16.3 79 31
30	O Cent. Maine Power	24	1.40	5.8	2.20	22	Sept. 10.9 64 32
105	S Cent. & South West	34	1.40	4.1	2.00	17	Sept. 17.0 70 36

FINANCIAL NEWS AND COMMENT

1954 (Rev. (Mili.))	(Continued)	11/2/55		Cur- rent Yield	Share Earnings*			Price- Earns. Ratio	Divi- dend Pay-out	Common Stock Equity
		Price Abous	Div. Rate		Cur. Period	% In- crease	12 Mos. Ended			
10	O Cent. Vt. P. S.	17	.92	5.4	1.32	22	Sept.	12.9	70	29
95	S Cincinnati G. & E.	28	1.20	4.3	1.80	10	June	15.6	67	38
6	O Citizens Utils.	16	.48h	6.0a	1.08	6	June	14.8	44	40
91	S Clevel. Elec. Illum.	36	1.60	4.4	2.11	4	June	17.1	76	42
3	O Colo. Cent. Power	25	1.20	4.8	1.64	6	June	15.2	73	39
35	S Columbus & S. O. E.	32	1.60	5.0	2.15	15	June	14.9	74	34
310	S Commonwealth Edison	41	2.00	4.9	2.72	14	June	15.1	74	49
10	A Community Pub. Serv.	24	1.00#	4.2	1.78	13	June	13.5	56	49
2	O Concord Electric	41	2.40	5.9	2.64	6	Dec.	13.5	91	63
60	O Connecticut L. & P.	18	.98	5.4	1.08	D3	Sept.	16.7	91	38
19	O Connecticut Power	41	2.25	5.5	2.77	25	June	14.8	81	41
474	S Consol. Edison	50	2.40	4.8	3.06	5	Sept.	16.3	78	43
170	S Consumers Power	51	2.20i	4.3	3.13	8	Sept.	16.3	70	42
61	S Dayton P. & L.	46	2.00	4.3	3.09	5	June	14.9	65	37
31	S Delaware P. & L.	37	1.50	4.1	2.25	9	Sept.	16.4	67	35
196	S Detroit Edison	36	1.60	4.4	2.36	21	Sept.	15.3	68	45
113	A Duke Power	55	2.00	3.6	3.26	2	June	16.9	61	53
81	S Duquesne Light	35	1.80	5.1	2.17	1	June	16.1	83	35
27	O Eastern Util. Assoc.	35	2.20	6.3	2.43	4	Aug.	14.4	91	36
2	O Edison Sault Elec.	16	.80	5.0	1.18	22	Sept.	13.6	68	49
10	O El Paso Elec.	40	1.60	4.0	2.33	2	Aug.	17.2	69	37
10	S Empire Dist. Elec.	30	1.40	4.7	1.91	D9	June	15.7	73	31
4	O Fitchburg G. & E.	54	3.00	5.6	3.26	16	Dec.	16.6	92	53
38	S Florida Power Corp.	43	1.60	3.7	2.07	10	June	20.8	77	28
79	S Florida P. & L.	36	1.00	2.8	1.93	27	Sept.	18.7	52	38
163	S General Pub. Util.	37	1.80	4.9	2.57	10	June	14.4	66	39
6	O Green Mt. Power	32	1.80	5.6	2.34	22	Aug.	13.7	77	39
47	S Gulf States Util.	37	1.40	3.8	2.06	11	Aug.	18.0	68	30
20	A Hartford E. L.	57	—	4.8	3.86	16	June	14.8	71	47
5	O Haverhill Elec.	41	—	5.2	1.95	D35	Dec.	21.0	110	100
58	S Houston L. & P.	41	1.40	3.4	2.36	12	Sept.	17.4	59	40
7	O Housatonic P. S.	23	1.40	6.1	1.58	20	Dec.	14.6	89	46
23	S Idaho Power	28	1.20	4.3	1.80	5	June	15.6	67	35
70	S Illinois Power	51	2.60	5.1	3.39	29	Sept.	15.0	77	35
37	S Indianapolis P. & L.	28	1.40	5.0	1.92	20	Sept.	14.6	73	35
18	S Interstate Power	14	.74	5.3	1.00	5	Sept.	14.0	74	30
27	O Iowa Elec. L. & P.	27	1.30	4.8	1.95	15	Sept.	13.8	67	33
31	S Iowa-Ill. G. & E.	34	1.80	5.3	2.32	16	Aug.	14.7	78	40
31	S Iowa Power & Lt.	27	1.40	5.2	1.89	3	June	14.3	74	31
27	O Iowa Pub. Service	16	.80	5.0	.91	D2	Sept.	17.6	88	33
12	O Iowa Southern Util.	22	1.20	5.5	1.63	18	Sept.	13.5	74	35
51	S Kansas City P. & L.	40	1.80	4.5	2.31	12	Sept.	17.3	78	32
25	S Kansas G. & E.	25	1.20	4.8	1.92	D3	Sept.	13.0	63	26
36	S Kansas Pr. & Lt.	22	1.20	5.5	1.53	7	June	14.4	78	26
35	O Kentucky Util.	26	1.28	4.9	2.16	26	June	12.0	59	34
6	O Lake Superior D. P.	23	1.10	4.8	1.45	3	June	15.9	76	37
5	O Lawrence Elec.	29	1.60	5.5	1.40	D25	Dec.	20.7	114	63
77	S Long Island Ltg.	21	1.00	4.8	1.37**	8	Sept.	15.3	73	32
41	S Louisville G. & E.	49	2.00	4.1	3.49	24	Sept.	14.0	57	35
7	O Lowell Elec. Lt.	58	3.30†	5.7	3.04	D19	Dec.	19.1	109	65
8	O Lynn G. & E.	29	1.60	5.5	2.01	D7	Dec.	14.4	80	75
7	O Madison G. & E.	43	1.60	3.7	3.20	2	Dec.	13.4	50	53
3	A Maine Pub. Service	18	1.08	6.0	1.36	8	Sept.	13.2	79	35
4	O Michigan G. & E.	44	1.35h	6.1a	3.43	12	June	12.8	39	31
144	S Middle South Util.	31	1.50	4.8	2.17	7	Aug.	14.3	69	35
24	S Minnesota P. & L.	27	1.40	5.2	1.94	12	Sept.	13.9	72	35
2	O Miss. Valley P. S.	29	1.40g	4.8	2.48	8	Sept.	11.7	56	30
10	A Missouri Pub. Ser.	13	.60	4.6	.83	D8	Sept.	15.7	72	29
5	O Missouri Util.	27	1.36	5.0	1.91	12	Sept.	14.1	71	36
31	S Montana Power	39	1.60	4.1	2.91	12	Sept.	13.4	55	34
122	S New England Elec.	16	.90	5.7	1.20	5	June	13.3	75	34
38	O New England G. & E.	17	1.00	5.9	1.30**	D2	Sept.	13.1	77	35
43	O New Orleans P. S.	45	2.25	5.0	2.62	D4	Aug.	17.2	86	39
2	O Newport Electric	43	2.00	4.7	2.70	11	Sept.	15.9	74	34
73	S N. Y. State El. & Gas	39	2.00	5.1	2.94	11	Sept.	13.3	68	36
210	S Niagara Mohawk Pr.	31	1.60	5.2	2.16	6	Sept.	14.4	74	34
68	O Northern Ind. P. S.	38	1.80	4.7	2.76	24	Sept.	13.8	65	35
118	S Northern Sts. Power	17	.80	4.7	1.13	10	June	15.0	71	33

PUBLIC UTILITIES FORTNIGHTLY

1954 Rev. (Mill.)	(Continued)	11/2/55			Share Earnings*			Price-Earns. Ratio			Divi- dend Pay-out	Common Stock Equity
		Price About	Div. Rate	Cur- rent Yield	Cur. Period	% In- crease	12 Mos. Ended	Price Ratio				
9	O	Northwestern P. S.	16	.90	5.7	1.34	10	June	11.9	67	27	
110	S	Ohio Edison	49	2.20	4.5	3.44	16	Sept.	14.2	64	42	
40	S	Oklahoma G. & E.	36	1.60	4.4	2.24	22	Sept.	16.1	71	30	
14	O	Otter Tail Power	28	1.60	5.7	2.02	4	Aug.	13.9	79	35	
386	S	Pacific G. & E.	49	2.20	4.5	3.18	18	June	15.4	69	39	
40	O	Pacific P. & L.	26	1.30	5.0	1.66	8	Aug.	15.7	78	29	
109	S	Penn Power & Lt.	48	2.40	5.0	3.05	7	Sept.	15.7	79	29	
196	S	Phila. Elec.	40	1.80	4.5	2.26	4	July	17.7	80	39	
29	O	Portland Gen. Elec.	25	1.10	4.4	1.62	18	Aug.	15.4	68	40	
52	S	Potomac Elec. Power	22	1.00	4.5	1.22	10	Aug.	18.0	82	36	
63	S	Pub. Serv. of Colo.	43	1.80	4.2	2.37	11	June	18.1	76	35	
250	S	Pub. Serv. El. & Gas	32	1.60	5.0	2.19	16	Sept.	14.6	73	31	
62	S	Pub. Ser. of Indiana	40	2.00	5.0	2.41	3	Aug.	16.6	83	34	
23	O	Pub. Serv. of N. H.	17	1.00	5.9	1.36	31	Sept.	12.5	74	33	
10	O	Public Serv. of N. M.	14	.68	4.9	.95	37	June	14.7	72	31	
21	S	Puget Sound P. & L.	35	1.80	5.1	2.23	15	Sept.	15.7	81	58	
49	S	Rochester G. & E.	43	2.24	5.2	3.34	7	Sept.	12.9	67	32	
14	O	Rockland L. & P.	18	.60	3.3	.83	36	Dec.	21.7	72	29	
7	S	St. Joseph L. & P.	25	1.32	5.3	1.74	1	June	14.4	76	41	
39	S	San Diego G. & E.	18	.80	4.4	1.05	2	Aug.	17.1	76	44	
8	O	Sierra Pacific Pr.	23	1.12	4.9	1.48	35	Aug.	15.5	76	28	
154	S	So. Calif. Edison	50	2.40	4.8	3.17	19	Sept.	15.8	76	36	
34	S	So. Carolina E. & G.	18	.90	5.0	1.33	12	Aug.	13.5	68	28	
6	O	Southern Colo. Pr.	15	.70	4.7	1.25	3	Aug.	12.0	56	41	
194	S	Southern Company	19	.90	4.7	1.39	5	Sept.	13.7	65	29	
14	S	So. Indiana G. & E.	31	1.50	4.8	2.31	10	Sept.	13.4	65	34	
4	O	So. Nevada Power	19	.80	4.2	1.36	2	June	14.0	59	64	
1	O	Southern Utah Pr.	15	1.00	6.7	.94	5	Sept.	16.0	106	39	
3	O	Southwestern E. S.	21	1.08	5.1	1.65	9	May	12.7	61	31	
33	S	Southwestern P. S.	26	1.32	5.1	1.55	8	July	16.8	85	30	
20	A	Tampa Elec.	26	1.00	3.8	1.47	16	Aug.	17.7	68	38	
117	S	Texas Utilities	36	1.16	3.2	2.05	17	Aug.	17.6	56	36	
35	S	Toledo Edison	15	.70	4.7	1.04	20	June	14.4	67	30	
11	O	Tucson G. E. L. & P.	27	1.04	3.9	1.72	16	June	15.7	60	40	
114	S	Union Elec. of Mo.	29	1.40	4.8	1.69	14	June	17.2	83	36	
28	O	United Illuminating	51	2.55†	5.0	3.13	8	Dec.	16.3	81	51	
4	O	Upper Peninsula Pr.	26	1.50	5.8	2.22	1	June	11.7	68	31	
32	S	Utah Power & Lt.	46	2.20	4.8	3.04	24	Sept.	15.1	72	41	
96	S	Virginia E. & P.	38	1.60	4.2	2.51	29	Aug.	15.1	64	36	
23	S	Wash. Water Power	38	1.70	4.5	1.99	8	Sept.	19.1	85	35	
116	S	West Penn Elec.	26	1.30	5.0	1.99	10	Aug.	13.1	65	28	
64	O	West Penn Power	50	2.40	4.8	3.14	12	June	15.9	76	33	
10	O	Western Lt. & Tel.	32	1.80	5.6	2.56	33	Aug.	12.5	70	27	
22	O	Western Mass. Cos.	41	2.20	5.4	3.00	6	July	13.7	73	52	
88	S	Wisc. El. Pr. (Cons.)	34	1.60	4.7	2.27	20	June	15.0	66	39	
35	O	Wisconsin P. & L.	25	1.28	5.1	1.65	4	June	15.2	78	32	
31	S	Wisconsin Pub. Serv.	25	1.10	4.8	1.62	11	July	14.2	68	34	
Averages						4.9%			15.2	73%		
<i>Foreign Companies</i>												
186	S	American & Foreign Pr.	14	\$75e	5.4%	\$1.94	D19%	June	7.2	39%	48%	
137	A	Brazilian Trac. L. & P.	7	—	—	1.26	D6	Dec.	5.6	—	70	
59	A	British Columbia Pr.	32	1.20	3.8	1.62	16	Dec.	19.8	62	28	
16	A	Gatineau Power	31	1.20	3.9	1.99	12	Dec.	15.6	60	30	
10	A	Quebec Power	29	1.20	4.1	1.56	20	Dec.	18.6	77	44	
45	A	Shawinigan Water & Pr.	66	1.45	2.2	2.84	25	Dec.	23.2	51	35	

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the net income available for common stock. **Based on average number of shares. a—Also regular annual 3 per cent stock dividend, which is included in the yield. b—Also 5 per cent stock dividend. c—Also 3/10 share of Northern Illinois Gas for each share of Commonwealth Edison. e—Includes 15 cents extra. g—Also 10 per cent stock dividend January 31, 1955. h—Also 2 per cent stock dividend. i—Also 5 per cent stock dividend. †—Estimated. #—Also occasional stock dividend.



What the State Commissioners Are Thinking About

Excerpts and digests from the opinions expressed in reports and addresses at the annual convention of the National Association of Railroad and Utilities Commissioners in Asheville, North Carolina, from October 24th to 27th, 1955.

On Functional Status of Commissioners

My concept of this status is that a commission, and each commissioner, functions in large measure as a 'trustee' for the sovereignty, the Congress, or the state legislature that creates the commission. This trustee status of an administrative agency involves problems vast in scope, tremendous in volume, and immense in property values. It is a status which I consider primarily as a special trust demanding a high degree of integrity, fairness, and imagination; a trust which intensifies greatly our responsibilities.

"We often hear the trite phrase 'a public office is a public trust.' True enough, but in reality our trustee status goes much deeper. The reason lies in the already mentioned fact that a Congress or a legislature has given us the task it formerly attempted to do itself. This immediately creates in us a duty to perform this task to the farthest limit of our ability.

"We all know that when someone else

gives us a special job to do, we feel more duty bound to do a good job.

"In other words, we should not consider ourselves as appointed or elected to mere political positions in order to give us a privilege to carry out our own personal designs, or the designs of others, but rather as placed in this position of special trust to carry out what the legislative branch of the government would desire us to do for the fair and honest interest of all parties. It is a position where we sit in judgment involving billions in values of other persons' properties, which in turn affect multimillions of consumers of utility services. In fulfilling this concept of 'trustee' we should be constantly conscious that we are thinking and acting for another; are making decisions for another—with facts, justice, and the Golden Rule always a subconscious precept."

—W. F. WHITNEY,
*Retiring president, National Association
of Railroad and Utilities Commissioners.*

PUBLIC UTILITIES FORTNIGHTLY

On Composition of the Rate Base

COMMENTS on rate base were given us by 25 regulatory bodies covering a wide cross section of the country. This report would be voluminous if we set forth the procedures of each, but some general observations can be made. Twenty of these jurisdictions continue to use rate bases derived from net investment or original cost and the balance give varying recognition to reproduction cost. While some of the 20 jurisdictions receive evidence on reproduction value, the general practice even in those states is to give net investment or original

cost controlling weight in determining the rate base. Jurisdictions in this category include: California, Colorado, Connecticut, District of Columbia, Federal Power Commission, Georgia, Hawaii, Idaho, Kentucky, Massachusetts, Michigan, New York, Oregon, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, and Wyoming."

—*Report of Committee on Progress in Regulation of Public Utilities, Benjamin F. Feinberg of New York, chairman.*



On Atomic Energy

THE 1954 Atomic Energy Act does not confer exclusive power to the federal government in certain fields which inherently have been the jurisdiction of the states. The 1954 act does give the AEC authority in some of these fields, but since it is not exclusively prescribed to the federal agency, there is a question of concurrent jurisdiction. I refer to the various state laws concerning health and safety, working conditions, workmen's compensation, transportation, public utilities, life, accident, fire, and casualty insurance, conservation of wild life, pollution of water and air, and similar matters.

"...there are very few, if any, states that have done any planning, or have proper statutes to regulate atomic activity.

"From the public utility commission standpoint, we must examine our respective state statutes with a view to making certain that they allow the proper regulation by our agencies of an atomic reactor operated by an electric utility within our jurisdiction. We must review our statutes with an eye to the acquisition, or erection, of an atomic reactor by a group of our utilities, and we must be certain that we have proper statutory authority to take care of the rate problems that arise out of an atomic reactor. As an example of this last item, consider the question of whether an electric company has the requisite corporate powers to sell fissionable material, and radioisotopes that are by-products of an atomic power plant, and if they do sell them,

should the proceeds be applied against the over-all cost of the electric energy? The answer to this question, both as to amount so recovered and its disposition, may well be the deciding factors in making atomic energy competitive with other fuels.

"To meet the needs of the years ahead, I recommend that each of us in our respective states:

1. Make certain that our state statutes are adequate in all fields.

2. Develop and maintain an active interest in atomic matters, to the end that we, as regulators, will be acquainted with the problems associated therewith.

3. Insure an active co-operation with the AEC, and its operating divisions, with a view to subjecting our utilities to the minimum of overlapping regulations.

4. Carefully scrutinize all proposed regulations and legislation, both federal and state, to make certain that there are no undue invasions, or surrender of, states' rights.

5. Continue and strengthen the nuclear energy committee of the NARUC."

—EDWARD R. THORNTON,
Commissioner, New Hampshire Public
Utilities Commission.

THE advent of the atom has not changed the fundamental principles of rate making.

"My opinion . . . is premised upon the understanding that fissionable material will, if

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present research and development continues to prove successful, merely be used as a substitute for the fossil fuels in supplying heat energy at a basic cost not less favorable than present conventional fuel costs. *Therefore, the value (as defined by law) of utility plant devoted to public service will, in the absence of any statute to the contrary, continue to be an important basis for determination of a fair and reasonable rate of return.* However, I candidly admit that other problems are created. . . . With the advent and use, transportation and storage of radioactive materials, our duty as a regulatory authority to adopt proper standards is now prescribed by statute. Under the provisions of the Atomic Energy Act, conflict with the power and authority of the federal government seems probable. Further study should resolve any possible conflict.

"To be practical—most of this possible conflict in jurisdiction, if not all, might be avoided if the states and the AEC could promulgate and adopt a completely uniform code governing the use, transportation, storage, and disposal of any and all radioactive materials.

"This plea for uniformity on the part of the states was made by our governor at the forty-seventh annual Governors' Conference in Chicago on August 10th, in a resolution which was adopted. As a result, the governors' executive committee has been designated to work with the federal government to obtain uniformity in the application of controls relating to the safe use of nuclear materials."

—JOHN H. McCARTHY,
Chairman, Michigan Public Service
Commission.



On FPC Regulation of Independent Natural Gas Producers

"THE Harris Bill, which passed the lower House of Congress in July of this year, provides for continued, but modified regulation of the natural gas producers. I believe it is reasonable to assume that if any legislation on the subject is enacted by the Senate, it will be somewhat similar to the Harris Bill and will not completely exempt the producers from federal regulation. Therefore, it appears to me that the practical question before us is not *whether* the producers' prices should be regulated, but *how* they should be regulated.

"During recent months, numerous advocates of the producers' cause have stated, with complete sincerity, I am sure, that federal regulation of the producers of natural gas is a step toward Socialism, in so far as that industry is concerned. I am sure that all of you

who are in this regulatory work will agree with me that this American system of utility regulation has not encouraged public ownership, but, on the contrary, has discouraged it.

"What is done in this field of regulation can have most serious effects on not only the natural gas industry and consumers, but on the entire economy of the country. Let us make sure that we do not now embark on any regulatory program which will be so cumbersome, so expensive, so indifferent to basic economic laws, or so inequitable in some cases, that we bring about a breakdown and loss of respect for the regulatory process, and thereby induce Socialism as the only apparent alternative."

—JEROME K. KUYKENDALL,
Chairman, Federal Power Commission.



On Liberalized Depreciation Practices

"THERE can be no doubt that Congress intended to allow all persons investing in new depreciable business assets after December 31, 1953, more liberal deductions for depreciation expense in the determination of taxable income. The allowance of more depreciation than is reflected by the straight-line method was considered to help mitigate

the risk inherent in investment in depreciable facilities by permitting more rapid recovery thereof, thus permitting quicker reduction in debt, aiding in the financing of new plant, or making more working capital available, and at the same time conforming more nearly with the actual occurrence of depreciation for many classes of property.

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"When one of the more liberal depreciation methods is used for federal income tax purposes the problem presented is how to treat the tax reduction for rate-making purposes. In the consideration of this question it should be recognized that both depreciation and tax expense are involved since it is the change in the depreciation expense for tax purposes that creates the change in the income tax expense.

"In general this committee favors the computation of depreciation expense for public utility accounting and rate purposes according to the straight-line method and the recording of income taxes each year at the actual tax liability for that year.

"However, if by reason of the provisions of the Internal Revenue Code of 1954, an additional expense allowance is made by regulatory commissions, it is recommended that the allowance should be recorded as depreciation expense—the item with which Congress was dealing. In this way there will be a balancing of interests in that the customer will pay more for depreciation expense but in return will realize an equivalent credit in the rate base. The treatment would, in effect, charge the customer more rapidly for the cost of plant consumed, but would give him *pro tanto* credit through reduction in the rate base. This would be fair treatment—fair alike to the utility and the customer.

"It may be asked, how should such allowances be computed? Obviously, the amount allowed by regulatory commissions should be recorded in the general corporate accounts. There may be situations where the declining balance or digits method is appropriate for rate as well as tax purposes. In these circumstances, the method should be used for accounting purposes also. However, there will

likely be many instances where utilities or commissions may not favor recording in the accounts the full additional depreciation allowance permitted by the code. In these situations, the book allowances for depreciation may be increased, by some systematic procedure consistently applied in harmony with the facts of the particular circumstances.

"There may also be instances where it would be reasonable to base the amount of additional depreciation charged upon the tax reduction effected through the liberalized depreciation provisions."

—*Report of Committee on Depreciation, N. Knowles Davis of Georgia, chairman.*

“THE committee is convinced that the use of the liberalized depreciation procedures permitted by the 1954 Revenue Act results in tax reduction, not tax deferral, and that it would be contrary to sound accounting principles and to the provisions of the Uniform Systems of Accounts to record such tax reduction in a deferred credit account.

"The real regulatory problem in connection with tax reduction arising through liberalized depreciation is how to treat the tax reduction in fixing rates for service. . . . The procedure for increasing depreciation charges by an amount equal to the tax reduction occasioned by liberalized depreciation may be especially apt for many utilities. It would be a sound financial practice which would not conflict with accepted accounting principles and is worthy of serious consideration by commissions and utilities."

—*Report of Committee on Accounts and Statistics, A. R. Colbert of Wisconsin, chairman.*

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On Modifying the Separations Manual

“AT the last convention held in Chicago in November of 1954, your committee was instructed by this convention to use its best efforts to secure the co-operation of the Federal Communications Commission and the telephone industry in the adoption of a modification of the Separations Manual, usually referred to as the Modified Phoenix Plan of 1954. It will be remembered at that time the Bell system had agreed to this modi-

fication of the manual conditioned upon (a) its acceptance by the states; (b) its acceptance by the Federal Communications Commission; and (c) that the method would not be placed in effect until interstate rates were adjusted to care for the increase in revenue requirements.

"In the year that has passed there has been a sharp increase in interstate toll revenues with a corresponding increase in the rate of

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return. At the time of the last convention it was the position of the Bell system that its earnings from interstate tolls were not sufficient to absorb any portion of the additional revenue requirements caused by the adoption of the manual. If the trend in revenues and rate of return continues, if not all, certainly a major portion of the revenue requirements could be absorbed without an increase in interstate rates. At the last meeting of your committee with the Federal Communications Commission on October 4th this uncertainty in the trend of interstate toll earnings was a major matter of discussion and, after hearing the views expressed informally by the Federal Communications Commission, your committee and that commission agreed that it was inadvisable for your committee to press at this time for a final decision . . .

"Your committee reported at the last convention and is still of the opinion that if modification of the manual is to be obtained by negotiation, the Modified Phoenix Plan of 1954 still affords the best opportunity of agreement. However, if an agreement is not reached in the near future, your committee recommends that it be free to study and propose to the next convention an alternate method for consideration by the state commissions irrespective of whether it is agreed to by the Bell system. To carry out this rec-

ommendation your committee offers the [following] resolution:

"This association in 1941 having created a special committee which has been continued from year to year entitled 'Special Committee Co-operating with the FCC in Studies of Telephone Regulatory Problems,' and the Special Committee having rendered its report to this convention,

"Now, therefore, be it

"Resolved that the National Association of Railroad and Utilities Commissioners in convention assembled reaffirms its belief that the present manual should be modified, and be it

"Further Resolved that in the event the so-called Modified Phoenix Plan is not adopted by the Bell system with the approval of the Federal Communications Commission prior to the next convention, the Special Telephone Committee is instructed to submit to the next convention a proposed plan or plans for the modification of the manual for consideration by this convention and the various state commissions."

—*Report of Special Committee Co-operating with the FCC in Studies of Telephone Regulatory Problems, Spencer B. Eddy of New York, chairman.*



On Debt Ratio

"A NUMBER of commissions and courts have passed upon the use of theoretical debt ratios. The general view is that, although management has the prerogative to determine the type of capital structure, it cannot thereby fasten high rates on consumers; management must balance consumer and investor interests. Decisions supporting the use of theoretical debt ratios include:

"District of Columbia Commission: *Re Chesapeake & Potomac Telephone Co.*, 6 PUR3d 222.

"Massachusetts Supreme Judicial Court, Suffolk: *New England Telephone & Telegraph Co. v. Massachusetts Commission*, 6 PUR3d 65.

"Idaho Supreme Court: *Re Mountain State Telephone & Telegraph Co.*, 8 PUR3d 265.

"Tennessee, Chancery Court, Part Two, at Nashville: *Southern Bell Telephone & Telegraph Co. v. Tennessee Commission*, No. 73566.

"New York: The commission permitted a utility to issue bonds that raised the debt ratio to 54.8 per cent where equity financing appeared impracticable, but observed that future permanent financing would have to be in the form of equity securities to maintain a reserve for future issuance of debt securities (Re Rochester Telephone Corp. 6 PUR3d 574).

"Arizona: In his paper, 'The Rate Base as a Test of Fair Return,' Mr. Howe, staff engineer of the commission, presents interesting statistics on debt ratio and return. He shows that in recent years 300 class A and B private electric utilities representing 98 per cent

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of the plant account in the country have averaged 10 per cent return on common equity with a debt ratio of 49 per cent, while 40 of these companies with no debt average 5½ per cent return on common equity, and 11 companies with a debt ratio exceeding 85 per cent averaged more than 15 per cent return on common equity. Mr. Howe states that to take a rate base and arbitrarily attach a rate

of return thereto is to work from only one side of the balance sheet; that we must determine the earnings requirement from the capital structure so as to compensate the investor in accordance with the industry's standards."

—*Report of Committee on Progress in Regulation of Public Utilities, Benjamin F. Feinberg of New York, chairman.*



On Operating Ratio Method of Determining Earnings Deficiency

“ONE important departure in recent years from the traditional regulatory practice of determining earnings deficiency by multiplying the allowable rate of return by the plant investment or property value has come about as the result of the poor earnings history of the transit industry, particularly the truck, bus, and tramway companies. Somewhat because of competitive conditions which by nature create risk, transit companies have not been able to attract capital on the same limited return-on-investment basis as that used for other utility services which by their inherent characteristics are noncompetitive, such as the gas, electric, and telephone industries.

“In late years, a new technique has been proposed as a means of overcoming the deficiencies which have arisen in the transit industry through basing the rate structure on the limited return-on-investment basis. It is known as the ‘operating ratio’ theory which is simply the relationship of expenses to revenues. Expenses may or may not include income taxes. . . . In time and with more experience, the operating ratio may be considered as reliable a gauge as rate of return on property in comparing the necessary earnings required to attract capital in other industries with comparable risks. For example, manufacturing companies and related industries often report profits on a dollar of sale basis

which could be converted, of course, to an operating ratio.

“The contention has been made that use of the operating ratio in determining required earnings encourages wasteful and careless performance. In your committee's opinion, however, it is inconceivable that a commission in reviewing the earnings and revenue requirements of any utility would not look at its expenses in order to assure itself that the management was honest, efficient, and economical. Expenses must be justified and reasonable.

“As indicated, the transit utilities are in the throes of a rigorous economic evolution due to competitive influences which are constantly making inroads upon them. This naturally has the effect of mitigating the value of their monopoly position and the importance of public convenience and necessity. Logically, the survival of these utilities does not depend so much upon the ability of commissions under applicable statutes to devise a reasonable scheme of rate making for them, whether it be an operating ratio method or a reasonable rate of return upon any form of valuation rate base, as it does upon the keen ability of management under less rigid regulation to adjust their operations upon a more fluent, yet compensatory, competitive basis.”

—*Report of Committee on Valuation, Albert P. Bruch of Wyoming, chairman.*



On Progress of Regulation

“WHEN I returned to regulation recently, the economy had undergone radical changes. The depression of the 1930's and the deflationary thinking which it had engendered had largely been forgotten. The

dominant economic force was the severe inflation which had taken place after World War II. We have been in a period of unparalleled business expansion, growth, and development.

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"Despite the fact that the economic conditions which existed at these two periods of time were quite different, the regulatory problem was fundamentally the same during both periods. Basically, this problem, as I view it, was and is one of developing regulation that will place regulated utilities on a plane with other industries and with the general economy.

"To be more specific, you will recall that the depression of the 1930's brought about a general decline in prices. As a result of this general decline in price levels, the general public expected that there would be some downward adjustment in the rates of regulated utilities. Many members of the public were aroused over the fact that such reductions were slow in coming. This resentment placed regulators in an unenviable position since they knew that utilities were earning far less than anything approaching a fair return and that a rate reduction order would quickly be reversed by the courts. If the depression established anything, it demonstrated clearly that it is just not practicable to raise rates when times are bad, and any theory or technique of regulation which assumes that this can be done is doomed to fail.

"The necessity for recognizing current conditions is equally important in times of inflation as in times of deflation. This has been amply demonstrated by the experience during recent years. We have been experiencing good times and rapidly increasing prices. The general price level has nearly doubled during this period, yet utility rates have increased only a relatively small proportion. This is all the more striking when one

considers that the basic costs of furnishing the services have increased greatly. If in regulating we disregard this fact and treat utilities as though they operated independently of economic conditions, it seems to me that we are defeating the purpose of regulation. Regulation is an economic function, not a punitive process. Any regulatory technique that disregards current economic conditions is artificial, unrealistic, and dishonest. Regulation cannot remake the economy; its objective should be to fit the regulated industries into the general economy as nearly as can be.

"Regulated industry will be expanding in line with our expanding economy, or even faster, on account of technological developments. Immediate examples that come to mind are the use of atomic power plants and customer dialing of long-distance calls. In our concern with the future, we as regulators must see to it that all utilities, including those serving the smallest communities and rural areas, keep pace not only with growth but with technological developments. Large amounts of funds will be needed to meet these future demands of the customers. No doubt, tremendous amounts of new capital will be required. To be sure that regulated industry will be able to do the job, utilities will have to be kept in good health. The demands on us in the regulatory field will be just as great in the future as they have been in the recent postwar period. Under wise regulation, utilities will continue as an important, well-integrated part of our economy."

—GEORGE C. MC CONNAUGHEY,
*Chairman, Federal Communications
Commission.*



On Proposed Amendments to the Federal Power Act, HR 7468

SECTION 10(f) of the Federal Power Act provides that when hydroelectric power project licensees are benefited by reservoirs or other headwater improvements constructed by other parties, including the United States, they shall reimburse the owner of the improvement for such part of the annual charges for interest, maintenance, and depreciation thereon as the Federal Power Commission may determine to be equitable. The proposed amendment provides that in those cases where any hydroelectric power

project owned by the United States is benefited by the construction and operation of any reservoir by another party, the United States shall pay to the other party an annual charge, the payment to be determined in the same manner as for charges paid by nonfederal interests. Such an amendment appears to do simple equity.

"Section 10 of the Federal Power Act gives the Federal Power Commission the authority to waive any license conditions, except the 50-year term, in the case of a com-

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plete power project of not more than 100-horsepower capacity. The proposed amendment would increase this standard for waiver to 2,000 horsepower. If such an amendment is made the commission would be relieved of the administrative burden relating to the small hydroelectric projects which are primarily of local concern and not affecting the national interest, and it would also relieve the many owners of small dams throughout the nation.

"Section 15 of the act provides that if the United States desires to do so it may take over a licensed project at the end of the license period, but that if the United States does not exercise this option, the commission may issue a new license to the original licensee or to a new licensee. The statute may have been intended to give a license holder

the first choice at the end of the license period, if the United States does not exercise its right of acquisition. Section 15, however, is not clear on this point and it is a matter of serious financial concern to those companies which are seeking licenses for constructed projects or are refinancing. If the license holder does not obtain a renewal license, it could cause a serious disruption of rates where lower-cost hydroelectric power has to be replaced by higher-cost steam-generated electric power. The proposed amendment would clarify § 15 so as to establish the preferment of the holder of the license at the time of expiration of the license."

—*Report of Special Committee on Legislation Amending Federal Power Act, John B. Conly of Pennsylvania, chairman.*



On "Purchased Gas" Clauses

"**T**HERE is still great interest in the use of escalator clauses, to which we referred in our report last year. The use of fuel clauses which were quite universally in effect at one time in the manufactured gas industry declined with the shift to natural gas. However, the same general result has been reached under purchased gas adjustment clauses inserted in order to meet the increased cost of procuring and gathering supplies of natural gas, which in turn is being passed on by the pipeline companies to the local distributing companies. In defense of these purchased gas price adjustment clauses, it is pointed out that a local distributing company usually has only one available source from which to secure its supply of natural gas, very much unlike the manufacturer of gas who may have numerous available sources of coal or oil. Probably one of the best arguments for such clause is that it enables rates to follow costs up and down readily, reducing the

time delay between an increase or a decrease in expenses occasioned by the cost of gas and the date of collection of this expense from the customers. In the presently apparently unlikely case of a decrease in such costs, the clause is of immediate benefit to the consumer. Such clauses also have served to reduce the volume of rate cases and to conserve the time of the regulatory bodies. If the operation of the adjustment clause results in an excessive return to the utility, the regulatory body still retains its authority to investigate and determine the proper charges. Similar escalator clauses with respect to labor and taxes still seem to be open to very serious criticism because of the difficulty of making a direct ascertainable and proportionate charge against the unit of energy sold to the consumer."

—*Report of Committee on Rates of Public Utilities, David M. Brackman of Massachusetts, chairman.*



On REA Loans and Service

"**F**LORIDA: The economics of some REA loans is still a disturbing problem. The commission has informed us that REA loans to some of the small companies have resulted in a plant investment of \$1,000 per station and the borrowers are in serious financial dif-

ficulties. The commission says that to permit rates high enough to cover operating expenses and the repayment of the loan would be equivalent to pricing the companies out of business.

"**Washington:** The commission also re-

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ports that *pro forma* income statements indicate the apparent inability of some companies to service their loans without applying all of their net income and some depreciation accruals.

"However, the commission says that it has achieved considerable success in overcoming this, and other, problems. The companies have followed the commission's suggestions and now include in their applications realistic cost estimates and market surveys.

Also, the commission tells us that REA officials and field personnel have been co-operative.

"Oregon: The public utilities commissioner says that REA loans for dial conversion will necessitate rate adjustments for many of the smaller companies."

—*Report of Committee on Progress of Regulation of Public Utilities, Benjamin F. Feinberg of New York, chairman.*



On Regulatory Lag

"**I**n this committee's report at Chicago last year, it was indicated that the regulatory lag was then showing signs of diminishing importance. There has been a pronounced tendency toward even more prompt processing of rate increase applications, with a resulting further decrease in the importance of their regulatory lag. While some of this tendency may be due to a smaller case load, it may also be attributed to the realization by the commissions of the im-

portance of minimizing this delay, and possibly also to improved techniques of presentation by the utilities. We are confident that further improvement in this regard may be expected. Certainly, it is desirable if the tendency of the courts to take over the rate-making functions of the commissions is to be finally and definitely reversed."

—*Report of Committee on Rates of Public Utilities, David M. Brackman of Massachusetts, chairman.*



On Reimbursing Utilities for Relocation Expenses

"**T**HE third matter worthy of detailed report this afternoon is one of legislation involving the reimbursement of utilities for relocation expenses necessitated by federal-aid highway construction.

"The increased cost added by the necessity to relocate utility facilities due to federal-aid highway projects, is an additional expense that must ultimately be borne by the user of the utility service. Every utility user should therefore be interested in this problem because he is paying twice for highways if relocation costs are part of the operating expense of utilities; he's paying once in taxes and again in higher utility rates.

"Particularly disturbing in this problem is the inequitable manner in which the burden of relocation costs falls on individual utility companies. A large utility serving many communities could expect to get heavy relocation costs in only a few of the communities. The utility which serves only one community may get no expense, moderate expense, or a tremendously heavy burden which will jeopardize its very existence.

"The expansion of the federal-aid highway program to meet increasing needs of interstate commerce and national defense, and changing concepts in the design and construction of modern highways have aggravated the utility relocation cost problem and forewarn of even greater costs and aggravation in the future.

"Based on the 'Fallon Bill' (HR 7474) which was reported out by the Public Works Committee of the House in the last session of Congress, I estimate . . . that the utilities will be required to spend, in one year, some \$42,000,000 for relocating facilities without a penny in reimbursement. This estimate . . . makes no allowance for the growing complexity of highway construction. The change in highway construction is familiar to all of us; the underpasses, the clover leaves, the traffic circles, the divided highways, multi-lanes, etc.

"It is probable that a good many members of Congress do not understand why utilities use highway rights of way or who actually pays the cost of relocation or any of the rea-

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sons why these costs should be treated as are the other costs of highway improvement. That this is true is unfortunately due, I believe, to the failure of many utilities to appreciate the scope of the problem and to inform their Congressmen about it.

"If a highway bill is enacted in the next session of Congress providing for construction for a 5-, 10-, or 12-year period and does not contain a provision for reimbursement for the cost of utility facility relocations, it is extremely doubtful that such a provision could be subsequently obtained during the construction period covered by that legisla-

tion. Important is the fact that it will be during this period that highway construction expenditures will be sharply increased and utility relocation costs will be similarly amplified. If we are to be successful in this legislative endeavor, the time to act is now and in the few months ahead; so that by the time the Second Session of the 84th Congress convenes the problem of the uninformed Congressman will have disappeared."

—*Report of the Washington office, National Association of Railroad and Utilities Commissioners, Austin L. Roberts, Jr., general solicitor.*



On Setting Utility Rates

THE difficulty of limiting the scope of a discussion of utility rates has become much more apparent since the Hope Natural Gas Case has permitted the regulatory authorities more than ever before to base their conclusions on over-all end results, and there has developed a strong tendency to establish the reasonable level of utility income or earnings on the basis of a somewhat rigid formula. This formula primarily involves a determination of rate base and cost of money, and a consequent calculation of the allowable increase or decrease in earnings which in turn involves associated fields of accounting, taxes, depreciation, and financial policies.

"Regulation of utility rates is a complicated process, involving conditions and circumstances peculiar to each case and varying widely between cases. Each case, then, must be decided on its own merits, with full consideration both for the customer who is purchasing the service and for the investor who has committed his money to the enterprise. The complex nature and variety of the elements so entering into each rate case make it impossible to adopt any simple formula that may be applied to all times.

"There are external forces such as com-

petition from other utilities or services which are independent of regulation, and which control or reduce what may theoretically or legally be permitted to be earned. The carriers of passengers for hire and local manufactured gas companies are examples of utilities which have experienced the forces of regulated or unregulated competition, which in turn have depressed their earnings far below what they would be entitled to under the applicable legal principles. Under such conditions any rigid formula must yield to practical considerations. Any rates which this type of enterprise can charge are clearly subject to a practical maximum, beyond which point their services would be priced out of the market. The questions of the cost of money and of a reasonable return thus become of little or no importance. Earnings in no event come even close to those to which these utilities are entitled. In fact, the enterprise sometimes has become so speculative in nature that it is doubtful whether it would be possible for it to attract new capital under the Hope Case."

—*Report of Committee on Rates of Public Utilities, David M. Brackman of Massachusetts, chairman.*



On Urban Mass Transportation

GRANTED that . . . indications of an increasing awareness of the transit problem on the part of the leaders of public thought, both in and out of government have not cured the ailments of the industry, they,

none the less, appear to me to contain seeds of hope for the future. When that knowledge of existing conditions has seeped down to the mass of people who have the greatest stake in the survival of a necessary private

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industry, measurable progress will have been made toward lightening the burdens of state and local taxation and clearing city streets of their present, almost unsupportable, congestion.

"The general public suffers long and sometimes seems to possess infinite patience. But when the public is finally aroused, the force of its determination sweeps all before it. When traffic congestion becomes so bad that the condition can no longer be tolerated, city administrations can no longer remain indifferent . . . How long it will take before the clouds which beset the privately owned bus industry will clear away is anyone's guess. I know only the old saying that 'it is always darkest before dawn.' Let us hope that the growing public recognition that remedial steps must be taken to aid the industry and that traffic congestion cannot further increase without the wheels of commerce grinding to a dead stop presages the dawning of a better and brighter day."

—GLEN R. BEDENKAPP,
*Commissioner, New York Public Service
Commission.*

THERE has been an attempt on the part of governmental agencies, the public, and of the industry itself, to refuse to make an honest appraisal of the actual situation as it applies to this industry. It is my conviction that much of the thinking has been motivated by political pressure and what would be ideal rather than what is practical and feasible. If the time can ever come when the ingenuity of the American people will create a formula which will make it possible to get something for nothing then I will gladly abandon my personal point of view with re-

spect to what I consider the requirements needed for a practical solution of this problem.

"It is apparent to any student of urban mass transportation that at least 75 per cent of the operation is economically sound and self-sustaining. I refer to what is commonly called 'rush-hour service.' By this, I mean that the amount of business from 5.00 A.M. to 9.00 A.M. and from 3.00 P.M. to 7.00 P.M. is sufficient to sustain and provide for all of the financial cost to provide that particular service. What is destroying the industry and bringing about a slow death and, in many instances, forcing tax reductions, liquidation, and municipal ownership is the service rendered over and beyond what is called the 'rush-hour service,' which I have defined in general.

"It is my thinking that the time has arrived when the obligation of urban mass transportation would be fulfilled to the public by providing rapid, efficient, courteous rush-hour service. The welfare and over-all interests of the public would be served to a greater degree if the matter was approached from this point of view because sustaining riders, who use buses regularly during the rush-hour periods, are charged an exorbitant rate in order to subsidize the smaller groups who use the service at all other times. If regulatory agencies, municipalities, and management of the urban transportation industry would approach the problem from this point of view, it would establish an industry that would be financially solvent and perpetuate itself."

—PAUL A. RASMUSSEN,
*Commissioner, Minnesota Railroad and
Warehouse Commission.*



On Telephone-answering Devices

THE question of the propriety of tariff prohibitions against the use of subscriber-owned answering devices has arisen in several jurisdictions. The Ohio commission upheld such a prohibition (*Murray v. Ohio Bell Teleph. Co.* 8 PUR3d 350).

"Acting Chairman Webster, of the Federal Communications Commission, has informed us that FCC has considered the use of subscriber-owned telephone-answering devices. After testing several makes of such

devices, the commission found that it has authority over their use in interstate and in foreign service but such use is only incidental to their use for local calls and for intrastate toll service. Therefore the commission did not exercise its jurisdiction over interstate or foreign use . . ."

—*Report of Committee on Progress in Regulation of Public Utilities, Benjamin F. Feinberg of New York, chairman.*



The March of Events

NARUC Convention

APPROXIMATELY 700 attended this year's annual meeting of the National Association of Railroad and Utilities Commissioners in Asheville, North Carolina, held late last month. Representatives of all state regulatory bodies were present for the first time in the association's history.

Retiring NARUC President William F. Whitney, speaking on the concept of commission regulation, stated:

We sit in judgment involving billions in values of other persons' properties, which in turn affect multimillions of consumers of utility services. We should not consider ourselves as appointed or elected to political positions in order to give us a privilege to carry out our own personal designs or the designs of others, but rather as placed in this position of special trust to carry out what the legislative branch of the government would desire us to do for the fair and honest interest of all parties.

Chairman Benjamin F. Feinberg of New York became the new NARUC president. Feinberg's own regulatory philosophy has been termed "Jeffersonian." Elected first vice president was John C. Hammer, chairman of the Tennessee Pub-

lic Service Commission. Edward R. Thornton, a member of the New Hampshire Public Utilities Commission, was elected second vice president.

Three panels—nuclear energy, natural gas, and urban bus transportation—held the attention of delegates and guests. Many of the visitors attended for one particular panel. On the nuclear energy panel, ex-Commissioner John H. Hessey (Maryland) stressed that the federal government could not relinquish its absolute monopoly until an adequate system of state regulation was established to cover this new development. Progress toward that end is being made, he noted, since the passage of the Atomic Energy Act of 1954.

Commissioner Thornton, on the atomic panel, raised the question of concurrent jurisdiction with respect to the federal Atomic Energy Commission and state commission regulation of health, safety, working conditions, workmen's compensation, public utilities, insurance, and so forth. He observed that few, if any, states have proper statutes to regulate atomic activity. New Hampshire, he said, passed the "model state law" recommended by the New England Governors' Conference Committee on Atomic Energy. (Text and analysis in *PUBLIC UTILITIES FORTNIGHTLY*, June 9, 1955, issue.)

THE MARCH OF EVENTS

Chairman John H. McCarthy of the Michigan Public Service Commission suggested that jurisdictional conflicts might be avoided if the states and AEC could promulgate and adopt a completely uniform code, governing all radioactive materials and their use, etc.

FPC Chairman Kuykendall summed up the continuing debate over regulation of natural gas producers. He observed that the "practical question before us is not whether the producers' prices should be regulated, but how they should be regulated." He expressed the growing impression of Washington observers that if legislation is passed by the Senate during the next session, it "will not completely exempt the producers from federal regulation."

Others appearing on the panel supported the familiar pro and con arguments, leaving open the question of regulatory boundaries in the natural gas field.

FPC Approves Start on Dams

THE Federal Power Commission early this month gave the Idaho Power Company immediate approval for construction of the controversial Oxbow and Brownlee dams in the Hell's Canyon area of the Pacific Northwest.

Both dams, to be built on the Snake river between Idaho and Oregon, were approved August 4th, along with a third Hell's Canyon dam. But construction could not begin until the company submitted final designs of the Oxbow and

Brownlee projects. The final design of the Hell's Canyon dam did not have to be submitted because building is not scheduled to start immediately.

The original FPC authorization called for starting the Brownlee unit in a year and the Oxbow unit in four years. But Idaho Power President T. E. Roach said recently that both projects would probably actually be delivering power before the scheduled start on Oxbow.

Utilities Lose Suit

THE United States Supreme Court on November 7th declined to review efforts by eight utility companies in Kansas, Missouri, and Arkansas to block Rural Electrification Administration loans to five electric co-operatives.

The eight companies appealed to the high tribunal after the court of appeals dismissed their complaint. The court of appeals said their sole objective was to "eliminate the competition which they fear." The appeal to the Supreme Court questioned, among other things, the lower court's ruling that the eight companies had no right to be heard on their complaint.

Companies filing the appeal were the Kansas City Power & Light Company, St. Joseph Light & Power Company, Missouri Power & Light Company, Missouri Public Service Company, Union Electric Company of Missouri, Missouri Utilities Company, Arkansas - Missouri Power Company, and Empire District Electric.

Arkansas

Rate CaseAppealed

AN appeal was filed with the state supreme court on October 31st by the Arkansas Power & Light Company from a Pulaski county circuit court decision

which upheld the state public service commission's dismissal of an application for an increased rate schedule filed by the company last year.

The appeal was made as a routine filing,

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with no request for the court to advance the case on its docket. If the case retains its regular place on the docket, it probably will be several months before a decision is handed down.

AP&L filed its application with the commission in May, 1954, for a \$3,900,-000 annual increase. The commission suspended the proposed rates, but the

company started charging them under bond in July, 1954. The commission conducted hearings on the application in the fall of 1954 and in November of last year dismissed the entire application on the grounds the company was not entitled to the additional revenue. The company appealed to Pulaski circuit court, which early this fall upheld the commission.

California

Six PG&E Projects Approved

THE state public utilities commission recently authorized Pacific Gas and Electric Company to construct six hydroelectric generating facilities of 528,000 kilowatts at a cost of \$149,100,000. The projects are divided between the region

of the North Fork of the Feather river in northern California and the Kings river basin in central California.

A 252,000-kilowatt capacity is specified for the three Feather river projects which will cost \$70,100,000. Three projects in the Kings river basin will cost \$79,000,-000 and generate 276,000 kilowatts.

Idaho

Court Turns Down Gas Plan

IN rejecting a proposal of the Idaho Natural Gas Company for gas distribution in southern Idaho as "hastily prepared and ill-considered," the state supreme court recently said a state certificate should have been awarded instead to the rival Intermountain Gas Company.

The high state tribunal reversed the award made by the state public utilities commission and ordered the commission in effect to hold a new hearing or grant distribution rights to Intermountain.

The opinion, written by Chief Justice C. J. Taylor, said Intermountain had offered a better plan based on lower rates and more realistic construction schedules for the communities of southern Idaho. The court said the commission should have ruled the other way, the Idaho Natural plan "being shown to be unsound, and the commission having before it an applicant whose plan is demonstrated to be sound, backed by ample financial support and technical managerial skill, and proposing to distribute available gas to the widest possible area."

Illinois

Council Group Approves Utility Tax

ENACTMENT of ordinances providing a 5 per cent Chicago city tax on gross receipts of utilities was recommended to the city council last month by its commit-

tees on finance and utilities. The action was by unanimous voice vote.

The vote followed a 45-minute public hearing, conducted jointly by the two committees, in which a spokesman for Peoples Gas Light & Coke Company made

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what was interpreted as a threat to challenge validity of the tax in the courts.

Attorneys for Commonwealth Edison Company and Illinois Bell Telephone Company told aldermen these utilities would not oppose the tax. A spokesman for Western Union Telegraph Company said his company "reluctantly would consent" to its imposition.

Action was taken on three ordinances—one for gas, another for electricity, and a third for messages transmitted by electricity. The utilities would pass the tax on to consumers by adding it to bills.

Applying against the new tax, and not passed on to consumers, would be existing city franchise taxes of 3 per cent on gross

receipts of Illinois Bell and 4 per cent on the gross of Commonwealth Edison. Others would pay the full 5 per cent. Thus, if the ordinances are enacted, Edison bills would rise 1 per cent, Illinois Bell 2 per cent, and Peoples Gas Light & Coke and the other utilities' bills the full 5 per cent.

Two amendments proposed by the utilities were approved. One would establish a 3-year "statute of limitations" on collection of the tax. The other would give the companies forty-five days after the end of a month to make tax returns for that month. The original ordinance gave them only fifteen days.

City officials have estimated the tax would net the city \$9,000,000 a year.

Nebraska

Attorney General Rules on Power Obligations

STATE Attorney General C. S. Beck recently ruled that there is nothing in the Nebraska Constitution making the development of public power an obligation of the state. He further held there is nothing in the state Constitution which would prevent such development of public power from being an obligation of the state.

"Therefore," he said, "it is purely a question of policy, to be decided by the people or their legislature, whether it shall be an obligation of the state."

The opinion was directed to State Senator Amos Morrison of Mitchell, who has been a leading exponent of a special state legislative session to deal with Nebraska's power problems. It was in this connection that Morrison asked the attorney general a series of questions to clarify the obligations of the state and its legislature.

"It is a function of the individual (power) districts, and not the state," he said, "to furnish needed power, because the legislature has given them broad au-

thority to construct necessary facilities. However, there is no law which commands a district to expand its facilities, so no legal obligation exists."

The attorney general also had been asked by Morrison whether power districts are governmental agencies, and who has authority over such districts. Beck replied that such districts are public corporations and political subdivisions of the state. Conduct of the affairs of the district, he said, is in the hands of the directors.

Tentative OK for A-plant

THE Atomic Energy Commission recently accepted a revised proposal of Consumers Public Power District as a basis for negotiating details for an atomic energy electrical distribution plant, to be built in Nebraska. It is believed that its location in the Lincoln area is probable if the plant is approved and constructed.

It would be the first public power atomic energy generating plant in the United States.

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New York

Governor Blocks Test on Niagara

GOVERNOR Harriman recently refused to let the New York State Power Authority challenge the validity of a Senate reservation to a treaty governing development of Niagara hydroelectric power. A court test was proposed as a way

to give development rights to the authority instead of private utilities. But Mr. Harriman said it was "more advisable" to let Congress settle the issue. He said he was hopeful that Congress would approve next year a Democratic bill clearing the way for the authority to develop this largest single bloc of hydroelectric power in the East.

Ohio

Utility Gets Rate Increase

MANUFACTURERS LIGHT & HEAT COMPANY, a subsidiary of Columbia Gas System, has been granted a boost in electric rates designed to yield \$1,228,004 in additional annual revenue from 41,600 customers in five eastern Ohio counties.

The state public utilities commission granted the increase last month, which was less than the \$1,635,338 in additional an-

nual revenue originally asked by the utility. Manufacturers Light & Heat contended the increase was necessary because of higher operating costs.

The company operates in the Ohio counties of Monroe, Belmont, Harrison, Jefferson, and Columbiana, accounting for about 5 per cent of its total business. A company official said a formal schedule of new rates would be filed with the state commission for approval.

Washington

Public-private Power Vote

PRIVATE and public power forces were scheduled to face a showdown battle in Stevens county of northeastern Washington on November 22nd, when county voters would go to the polls to decide which of two organizations—the Washington Water Power Company of Spokane or the Stevens County Public Utility District—will own and operate the county's power system.

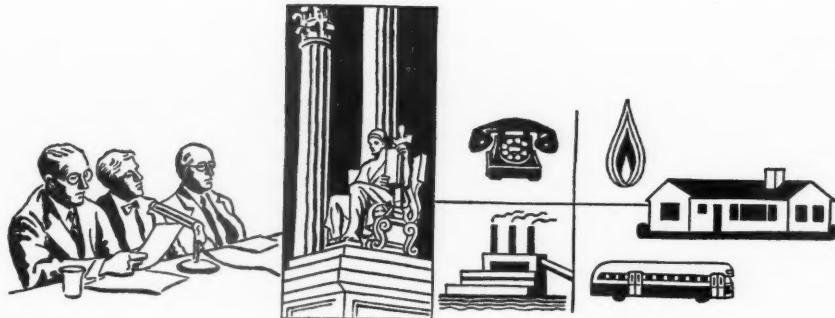
The voters would be the first in the state ever to make a clear-cut choice between private and public power. Such an election has never been held in the state since passage of the public utility district law in the 1930's.

There are two separate power systems in the county. The PUD's system, pur-

chased from the Rural Electrification Administration in 1952, includes 1,200 miles of distribution line. The agency has about 2,400 customers. The Spokane utility firm has about 400 miles of line and serves approximately 3,000 customers, most of whom are in urban areas.

If voters choose private power, Washington Water Power will buy PUD holdings for \$2,905,000. The PUD then would pay off its indebtedness of \$2,400,000 and become an inactive organization for at least five years, during which Washington Water Power could operate without competition.

On the other hand, if the people choose public power, the PUD will purchase Washington Water Power property for \$3,100,000. The Spokane utility then would leave the field to the PUD.



Progress of Regulation

Regulatory Trends

THE obligation of a public utility company to render adequate service is well established. One method of enforcing this obligation is to order service improvements and correction of deficiencies. Another method is to relate service adequacy to rates, or to attach service conditions to rate orders. Weight may be given to adequacy of service in determining the rate of return to be allowed. This subject is discussed in Chapter 21 of the recently published treatise on *Rate of Return* by Ellsworth Nichols, published by Public Utilities Reports, Inc. Some recent decisions on this point are noted below.

Penalty for Service Deficiency

Enforcement of the service obligation by the imposition of heavy penalties for service deficiencies is witnessed in the recent order of the Pennsylvania commission as the result of an investigation of the service and facilities of the York Telephone & Telegraph Company (reviewed at page 909). The company, according to the commission, had failed to provide adequate service, had not complied with commission directives, and had not kept its construction program current.

Rates Dependent on Adequate Service

The Arizona commission held that a return allowance was not confiscatory after considering, among other things, the fact that the company had not made a reasonable effort to install sufficient plant, maintain existing plant, and correct service deficiencies (82 PUR NS 46). The Maine commission said that a utility must be efficiently and economically operated as a condition to the exercise of its right to impose rates that will yield an adequate return

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and a company using inadequate, expensive, and obsolete equipment, and permitting peak uses to occur with inadequate reserves for breakdowns, was not entitled to the same rate of return as a company rendering up-to-date service in quality, quantity, and price (74 PUR NS 23).

The Missouri commission said that a company which has failed to maintain its plant in a high state of efficiency and to make necessary additions and betterments should not be allowed a rate of return as high as the amount allowed companies which maintain a high standard of service (72 PUR NS 17). The same commission, in a recent rate case involving Western Light & Telephone Company, Inc., expressed the view that permission to increase rates in a certain exchange should be denied until the company has convinced the commission that substandard service had been improved and the conditions of plant and equipment bettered (10 PUR3d 70).

The quality and standard of service has also been considered in fixing rates in Hawaii (76 PUR NS 389), Idaho (79 PUR NS 9), Indiana (100 PUR NS 235, 1 PUR3d 27), Minnesota (95 PUR NS 508), Nebraska (82 PUR NS 181), New Hampshire (97 PUR NS 410), and Vermont (79 PUR NS 508, 90 PUR NS 46).

The California commission has declared that a utility may not demand the same return for inadequate service as it would be entitled to for the faithful performance of its public duty (1 PUR3d 244). The commission, in one recent case, believed that permanent rates designed to produce a fair return should be made effective as of the time when adequate service might be assured (4 PUR3d 97). But a small water company was authorized to increase rates notwithstanding serious service deficiencies where the present return was very low and increased operating expenses would reduce it even further (7 PUR3d 136).

The Montana commission recently granted a rate increase to Treasure State Utilities Corporation although the company was rendering inadequate service, but it made the increase conditional upon the supplying of adequate service (9 PUR3d 107).

Adequate Service Dependent on Adequate Rates

The New York commission, recognizing the dependency of companies upon financing to provide good service, concluded that an increase in rates should be permitted even though the quality of service is subject to complaint if service faults are attributable principally to inadequate equipment and a lack of facilities to provide better grades of service, necessitating the attraction of capital to provide funds for service improvement (92 PUR NS 33).

The North Carolina commission has said that complaints against service do not warrant a denial of an increase in rates where the company is not making a just and reasonable return (87 PUR NS 77). Necessity, said the commission, demands that a company be given an increase in order to enable it to maintain its present efficient operation and to expand its services to meet all of the needs required (88 PUR NS 330). The commission, in one case,

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decided that it should not deny a needed rate increase because of a failure to meet the demand for service where the company would be able to expand service only if the return was such as to make it attractive for investors to advance new capital to finance the improvements and extensions required (89 PUR NS 13).

The Kentucky commission allowed a rate increase where a company was in the process of converting from manual to dial operation notwithstanding the fact that the impact of conversion on revenues and expenses could not be ascertained, where the increase was necessary if the utility was to be permitted earnings sufficient to enable it to render adequate service (83 PUR NS 65).

The Utah commission, in a case involving a transit company, said that the interest of the public would be better served by requiring an increase in service rather than by ordering a decrease in rates where complaints had been made against overcrowding but acquisition of additional equipment would, in itself, tend to nullify any excess return (78 PUR NS 1). A transit company was authorized by the same commission to increase rates notwithstanding contentions that service was inadequate where a rate increase was necessary, in the face of declining patronage, to guarantee to company sufficient revenue to continue service (4 PUR3d 144).

Service Adequacy Not Related to Rates

The state commission, according to the Florida supreme court, had no authority to make service orders in a rate proceeding. The commission had no power to deny a rate increase which it had found to be just by inflicting a penalty because of poor or inadequate service. It was said that under the laws of the state the rate-making power should be exercised in one proceeding and the question of the adequacy or inadequacy of equipment, repairs, improvements, and service should be disposed of in another proceeding (3 PUR3d 145).

A Michigan circuit court held that adequate and nonconfiscatory rates could not be denied upon the theory that the value of existing service did not warrant an increase in rates (100 PUR NS 170). The court said that if existing service was found to be inadequate in certain instances, the commission could not impose the penalty of confiscation since such penalty would not only be contrary to law but would also prevent the company from ever attracting needed capital to make service improvements and would have the effect of causing the company's service to deteriorate further rather than to improve. It followed the same rule in another case (1 PUR3d 6), and the Michigan supreme court agreed, stating that the commission may not arbitrarily condition an increase in rates on an improvement of service and facilities if it has found that the rates being charged are inadequate (8 PUR3d 97).

A utility to survive must receive a fair return, said an Ohio court, since otherwise capital will not be attracted to furnish the funds for new equipment needed to meet the demands for increased population and consequential demands for service. The court said that the commission had ample authority

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to require adequate service but it lacked the authority to demand that certain installations and improvements be made before the company might claim and receive just and reasonable rates for the services actually being rendered. The court said that although the commission had authority to compel improvement of service, "services and rates, although related, are not wholly dependent on each other" (98 PUR NS 246). In a later case, the same court ruled that the commission might, upon a sufficient record, make an order increasing rates even though there was a finding that part of the service was below standard and no final order was made with reference thereto (5 PUR3d 266). A similar view was expressed by the Pennsylvania commission when it said that the adequacy of a company's service will not be considered at issue in a rate proceeding (5 PUR3d 75).

Review of Current Cases

Commission Findings Not Reversible Because Inconsistent with Expert Testimony

THE supreme court of Tennessee, in modifying and remanding a lower court decision, has, in effect, affirmed a commission order authorizing a \$90,000 telephone rate increase instead of a larger increase recommended by the commission's expert witness.

History of Proceeding

In the commission hearing the company introduced two expert witnesses. One of these concluded that a rate increase of at least \$166,000 should be granted and the other suggested a \$183,000 increase. The commission's own expert claimed that a rate increase of about \$155,000 was necessary. But the commission granted only a \$50,000 increase at that time. It filed no substantial findings in support of its conclusion.

On the company's appeal the lower court held that the commission had acted arbitrarily and remanded the case with directions to fix rates to yield an annual increase of not less than the amount suggested by the commission witness and re-

port back within sixty days. The commission complied, but it also filed a response to the decree which contained an exhibit including a new rate schedule calculated to yield \$90,000 in additional revenues. The court rejected this new rate schedule and the commission appealed to the supreme court.

The exhibit constituted a commission appraisal of the evidence based on a consideration of "the testimony of all witnesses, exhibits, and the entire record." It included a new schedule of rates which "would result in an annual rate of return of approximately 5.11 per cent to the company," which, according to the report, was in excess of that of like utilities in surrounding territories, and would be a "fair, just, and reasonable increase," yielding an adequate return.

Legality of Lower Court's Action

The supreme court considered, first of all, whether the lower court erred in ordering the commission to fix rates which would produce an annual increase in reve-

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nue of not less than the amount deemed necessary by the commission's witness. It concluded that this action amounted, in effect, to the substitution of the witness' opinion for that of the commission. It constituted, in other words, the indirect exercise by the court of the rate-making power in regulating a public utility. The court held that courts cannot directly or indirectly exercise the rate-making power. Furthermore, the court pointed out, the commission is not required to accept literally and in toto the testimony and opinion of its witness.

Rate Making Is Legislative

The business of fixing utility rates is solely a legislative function. The court noted that the state legislature has, by the enactment of a statute, affirmatively exhibited an intention that the commission may evaluate the evidence offered in rate proceedings. In addition, the state Constitution vests inalienably in the commission the power to determine the weight to be given to particular evidence, free of interference by the courts further than to prevent arbitrary action.

Supplemental Exhibit Supports Rate Order

The supreme court also concluded that the lower court should not have remanded the matter to the commission. The lower court's final decree admitted that the commission, in recommending the rates set out in the exhibit, did "review the transcript,

exhibits, testimony of witnesses, and all of the record in the cause." The commission in that exhibit considered the right of the ratepayer to adequate service, the present value of all company property, cost of replacement, and cost of "borrowed capital."

This, according to the court, completely rejected the thought that the rates recommended by the exhibit were arbitrary or confiscatory. In fact, they were deemed to have furnished material evidence in support of the conclusion that the recommended rates were sufficient to yield a fair return.

A remand could only result in a duplication by the commission of its exhibit in reporting back to the court.

The supreme court also held that the lower court committed error in striking this exhibit from the record. The exhibit, constituting the findings and conclusions of the commission as a result of the consideration of the record and its evaluation of the evidence, amounted to no more than the belated performance of the commission's duty. It was submitted to the court during the period within which "further action by the court was reserved" and was authorized by the statute providing that the court may require or permit subsequent corrections or additions to the record when deemed desirable. The supreme court concluded that the rates fixed by the commission in the exhibit should be put into effect. *Southern Continental Teleph. Co. v. Tennessee Railroad & Public Utilities Commission, October 7, 1955.*



No Undue Discrimination from Allocation of Administrative Expense to Industrial Customers

THE United Gas Improvement Company had been a holding company which owned and operated seven sub-

sidiary corporations. An electric utility, along with six gas subsidiaries, merged into the body corporate of UGI. Five

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months after the merger, UGI, as the general operating company, applied to the Pennsylvania commission for authority to increase certain electric rates.

Prior to the merger, UGI had rendered accounting, auditing, tax, record, budget, and reporting services to its subsidiaries. As a holding company, it had been prohibited from charging an excess of \$2,500 annually to any subscriber for these services. After the merger, UGI continued the services but began to charge expenses to the utility operations.

Several industrial customers of the electric division appealed to the Pennsylvania superior court after the commission had authorized the rate increase. The charge was made that the commission had unduly discriminated against the industrial customers by allocating all of the electric division's administrative expense to large power users, thus creating an unreasonable difference as to rates between classes of service.

Although it is common knowledge, said the court, that industrial rates in the electric industry are usually established at relatively low levels, there is no law or usage in the industry which sets up a formula for determining a proper ratio between the rates of large industrial users and other classes. The commission's in-

quiry into the validity of the proposed tariff comprehended within it the question of discrimination in rates between classes of service.

The court found that the record supported the conclusion that the new rates did not unreasonably discriminate against large power users. This being so, it was unimportant that the commission did not make specific findings to that effect, said the court.

Application Not Premature

The customers also contended that the application for the increase was brought prematurely. No increase in rates should have been allowed, it was claimed, until economies which UGI asserted would result from the merger had actually been effected.

The economies referred to, answered the court, related principally to the combined service of the six gas companies. They would not materially reduce the expense of operating the electric division. Moreover, the court said, the question of prematurity is an administrative question which should be decided by the commission and not by a court. *Natona Mills, Inc. v. Pennsylvania Pub. Utility Commission*, No. 241, September 28, 1955.



Telephone Company Not Required to Render Accounting For Moneys Collected for City Sales Tax

THE propriety of the billing method in use by the New York Telephone Company came up for review before the New York court of appeals. The lower court had denied a petition by a customer seeking to enjoin the collection of city taxes on suburban calls and for a judgment declaring that the city had no right to collect such taxes.

The court upheld the decision of the lower court. The telephone company, it said, in extending its dial system with the approval of the commission, was nevertheless mandated by the sales tax law of the city to collect sales taxes. Conceding that the moneys were not collected as taxes but only as an inevitable incident and concomitant of its actual tax collection, the

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company had at all times been willing to refund to any subscriber upon simple application the amounts claimed due. The company's attitude did not create any basis for an accounting decree.

Nor was there any justiciable controversy, held the court. No "actual controversy" exists where the court is asked merely to declare what both parties admit; namely, that suburban calls were not taxable and that the company had no right to keep moneys not properly chargeable.

The injunctive relief sought, thought the court, was sweeping, and might seriously interfere with the company's duty to collect the taxes due. The customer's request that the company be directed to install an entirely new system, so that suburban calls could be differentiated from others, was refused. The commission, said the court, was in a much better position to determine the propriety of introducing a different dial system. *Goodman & Co. v. New York Teleph. Co.* 128 NE2d 406.



Telephone Company Penalized Heavily and Ordered to Make Construction Program "Current"

An investigation by the Pennsylvania commission to determine whether a telephone company was providing adequate, efficient, and reasonable service and facilities resulted in the imposition of severe penalties and a mandate that the company put its house in order.

The commission was of the opinion that the record was replete with evidence that the company had been disdainful and contemptuous of the public, had been interested only in securing the maximum dollar return for a minimum of service, and had deliberately chosen to refrain from expenditures for man power which would have provided timely service, contrary to a commission order as far back as 1952.

The company had failed to provide, within a reasonable time, service to numerous applicants who were ready, able, and willing to pay. Service to existing subscribers was inadequate, inefficient, and unreasonable and subject to unreasonable delays. A portion of the company's cable in a certain exchange was defective. No steps had been taken to inform service applicants of the progress of their applications.

The company had been directed in the 1952 order to employ three additional cable crews within thirty days. This directive had not been complied with for nearly two years after the order, during which interval deferred applications continued to accumulate.

The evidence also showed that the company was providing multiparty (five or more persons on a line) service within base-rate areas, at the same rate charged for 4-party line service. This practice resulted in undue discrimination, held the commission, since all customers paying the same rate should receive the same grade of service.

Several witnesses had complained about the company's use of a cut-off device which terminated calls between exchanges in the same local service area after a duration of from five to six minutes. The company made it plain that it regarded the use of the cut-off system as being a matter within the sole discretion of management. The commission held that the company had not met the burden of proving that the cut-off devices were reasonable by the bare assertion that such devices gave adequate service.

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Penalties Imposed

The commission thought the company clearly deserved to be penalized. The company's objection that the imposition of fines would so weaken its financial structure that it would be unable to provide service to its customers was held invalid since the president himself had testified that the company had ample financial resources. The company was fined \$32,750, representing \$50 a day for each of 655 days of default with respect to employing three additional cable crews. For failure to service deferred applications as directed in the 1952 order, the company was fined \$19,800, representing \$50 a day for each of the 396 days in which the company unlawfully denied service to certain applicants.

The company was ordered to make its construction program "current"—that is,

to furnish service as provided under its tariff to all applicants for service, including requests for upgrading and for additional line facilities, within thirty days of each application—on or before dates stipulated.

To prevent further violation, the company was directed to submit separate reports to the commission of all applications not filled within thirty days, containing an explanation of the circumstances beyond the company's control which had occasioned delay and a definite statement of the date when the application would be filled. The company was also ordered to repair the defective cable, to eliminate multiparty service in base-rate areas, and to eliminate the use of time cut-off devices. *Re York Teleph. & Teleg. Co. Investigation Docket No. 16, August 8, 1955.*



States Differ on Accelerated Depreciation Accounting

THE Florida and Ohio commissions took widely divergent views on the proper accounting procedures to be followed by public utilities taking advantage of § 167 of the Internal Revenue Code of 1954. Under the new code a utility may depreciate its property on more liberal terms. The question on which the commissions differed was as to whether the tax consequences of accelerated depreciation were deferrals or savings.

Florida Viewpoint

Accelerated depreciation, according to the Florida commission, is similar to accelerated amortization of defense facilities. Assuming a constant tax rate, the company over the years would pay lower taxes during the periods when it was charging maximum depreciation and high-

er taxes when it was limited to lesser amounts.

The commission noted that this would undoubtedly benefit the utilities and at the same time would not be detrimental to present or future ratepayers since taxes and depreciation would be normalized. Indirectly, such procedure would benefit the public in that it would tend to assure necessary expansion and growth to meet all needs.

The Florida commission concluded with the comment that if a tax reduction, rather than a tax deferral, resulted, it would take a second look at the matter.

Ohio Viewpoint

A claim by the Ohio Power Company that there was no difference between accelerated depreciation and the accelerated

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amortization of defense facilities was specifically rejected by the Ohio commission. In support of its position, the views of the NARUC Committee on Accounts and Statistics were quoted as follows:

At the outset, the tax effect of the liberalized depreciation charges must be distinguished from the tax savings under the 5-year amortization of emergency facilities under § 168 of the 1954 Revenue Code (§ 124A of the Revenue Act of 1950). The latter procedure results in a saving for a definite 5-year period and it is normally to be expected will be followed by a period of higher tax payments. In contrast, liberalized depreciation results in tax reduction for an indefinite period of time which may

be very long and, in fact, may be continuous.

The commission concluded that if it authorized the company to credit on its balance sheet to an earned surplus account entitled "Earned Surplus Restricted for Federal Taxes on Income" the amounts of the tax "savings" or "deferrals" in question, it could be detrimental to sound utility regulation. The commission then denied the application for authority to use the same accounting procedures as for accelerated amortization but did not suggest another method. *Re Gulf Power Co., Tampa Electric Co. Docket Nos. 4285-EU, 4302-EU, Order No. 2225, September 1, 1955; Re Ohio Power Co. No. 25638, September 9, 1955.*



Second Supplier Denied Right to Serve Gas Distribution Company

THE Federal Power Commission refused to authorize Texas Eastern Transmission Corporation to serve United Gas Improvement Company, a gas distribution company, from two new delivery points. Instead, it authorized Manufacturers Light & Heat Company to furnish the service. That company had been serving the distribution company and the commission deemed it contrary to the public interest to add a second supplier. In so ruling, the commission reversed its trial examiner.

Need for Additional Supply

The commission said that its decision involved a balancing of interests to be protected. The facts of one proceeding before it might impel one result, while a different proceeding with different facts might, in the implementation of the same policy, throw the balance in the other direction.

Consequently, it considered the particular facts of this case. It found that if the distribution company were to continue to supply all the requirements of the service district involved from natural gas received at existing points of interconnection, it would be immediately necessary to construct new looping facilities at substantial cost to provide sufficient capacity. Furthermore, the company would have to embark immediately upon an additional construction program, which could be deferred two or three years if the proposed new source were made available.

Manufacturers, which intervened in the proceeding, did not oppose service from the proposed new delivery points. On the contrary, it offered to make the new service available to the distribution company from Texas Eastern's facilities. The commission believed that such an offer would achieve the most important advantages to

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be derived from the new service. The new construction costs would be avoided or delayed, and, most importantly, the physically new source of supply and increased operating flexibility would be made available to United Gas Improvement Company.

Basis for Reversing Examiner

A natural gas pipeline company, being authorized to serve a distribution company, undertakes certain duties and responsibilities. It must render, to the best of its ability, the service required by the distribution company. But, the commission said, such a certificate does not give the natural gas company an exclusive monopoly to serve the distribution company. By this it did not mean that there may not be cases in the future, as there have been in the past, in which its policy of balancing the interests involved in achieving the result most consistent with public interest would not require that it direct a second natural gas company to supply part of the requirements of the distribution company. In instances where the first natural gas company is unable to render satisfactory service because it is unable to provide the distribution company with a second physical source of supply, important operating flexibility, and added safety in operation, it may be necessary to au-

thorize a second natural gas company to provide the service. In this case, however, it concluded that the new source of supply and operating flexibility were available through continued service from Manufacturers.

The only advantage to which the distribution company could point as a reason for ordering the second pipeline company to serve part of its requirements was a relatively small saving in purchased gas costs. This saving would be achieved, not because Texas Eastern could sell gas more cheaply at the existing load factor, but only through the insertion of Texas Eastern as a base load supplier, leaving Manufacturers with the responsibility of supplying not only a large portion of the base load but also all the peaks as well.

The commission said that, in the absence of other considerations, it is not in the public interest to direct a second natural gas company to render base load service to a distribution company. Furthermore, the commission held that if the distribution company were to take peaking requirements from Texas Eastern under an appropriate peaking service rate schedule, even the small monetary advantage would be largely reduced or completely eliminated. *Re Texas Eastern Transmission Co. Docket No. G-2573, Opinion No. 286, September 30, 1955.*



Transit Companies Get Permanent Bus Fares After Converting from Streetcars

THE Minneapolis Street Railway Company and The St. Paul City Railway Company, having operated on temporary rates for more than two years while converting from streetcar to motorbus service, have now been authorized by the Minnesota commission to establish permanent rates. Since, obviously, the conversion

would result in a drastic change in the rate bases and in the operating expenses, the new rates were necessarily delayed until experience data on bus operations could be accumulated.

The commission fixed identical fares for the companies. The rate of return for the Minneapolis Company was calculated

PROGRESS OF REGULATION

at 7.12 per cent, while the rate for the St. Paul Company was computed at 6.46 per cent. Each such rate was expressly found to be fair and reasonable.

For continuous intercity rides the commission ordered a joint line rate amounting to one and one-half city fares in place of the existing charge of two single fares. The latter charge was found to be inequitable, and no reason was perceived why a joint operation should not be required for intercity travel.

Valuation

The commission discussed a number of cases relating to valuation and came to the conclusion that so far as federal law is concerned in the fixing of a rate base, a commission "may take into consideration actual legitimate cost but may give consideration to reproduction cost and other elements so long as the total effect of the order cannot be said to be unjust and unreasonable."

In view of the fact that a large portion of the value of the companies' buildings represented present-day costs and because the commission determined to assign present-day costs to the land, it being ideally suited to the purposes for which it was used, book cost less depreciation was used in fixing the value of the buildings. The companies insisted that their old buildings should be revalued, for rate base purposes, on the basis of reproduction cost less observed depreciation. On this point the commission said that because of technological improvements in construction in recent years, "it seems unrealistic to attempt to reproduce buildings constructed many years ago for another purpose." It therefore rejected this method of valuation.

The companies urged, further, that their equipment, also, should be revalued on a service life basis at present values. The

commission replied to this contention by saying that it had the effect of "stretching the fair value theory at both ends to get the most out of it," by ignoring the fact that many of the vehicles had been fully paid for in depreciation. Automobiles, trucks, and other equipment were assigned net book value.

Working Capital

The commission refused to include in working capital an allowance for items called by the companies "emergency expenses (to be met) in case of disaster or a strike." These items, which include pensions, group insurance, bus rental, interest and principal payments, and supervisory payroll, do not come within the meaning of working capital, the commission said.

Other items rejected as elements of the working capital allowance were minimum bank balances, injuries and damages funds, and deposits for street paving. The commission observed that the daily receipts of the companies were available to meet these requirements and that the injuries and damages funds could properly be used for other prudent uses besides the dedicated purpose. It pointed out that since a transit company (unlike telephone, gas, electric, and water utilities) collects its compensation in advance of service, there is no 30-day lag such as must be considered in fixing the working capital allowance for other utilities.

The commission did, however, allow the Minneapolis Company for working capital an amount equal to $1\frac{1}{2}$ per cent of the rate base as finally determined, which allowance it believed to be adequate. Approximately 2 per cent was allowed the St. Paul Company for this item.

Expenses

The commission calculated expenses

NOVEMBER 24, 1955

PUBLIC UTILITIES FORTNIGHTLY

from the experience data accumulated during and since the conversion. Rental payments by the Minneapolis Company for leased buses were not allowed as an expense. Because of debt limitations on the company, it was unable satisfactorily to finance the purchase of all the buses it operated. A number of them, consequently, were rented, and the company sought to have allowed as an expense for rental a sum which in four years would approximately pay the entire cost of the vehicles.

The commission observed that passengers are required to pay only a sufficient fare to take care of depreciation and operating expense and to furnish a fair rate of return on the property used. The management and the owners, on the other hand, have the duty to furnish the equipment necessary for operations.

The commission concluded that the proper way to handle the item was to treat the vehicles as the property of the company, including their value in the rate base and allowing an ordinary annual depreciation on them as an expense item. Depreciation expense on equipment other than buses was computed on net book value rather than gross book value as proposed by the company.

The companies claimed heavy losses from the abandonment of their street railway facilities before the cost of the property had been fully recouped through depreciation charges. It was proposed to amortize one-half of this loss and charge it annually against operating expense. It

appeared that the loss resulted from obsolescence.

Discussing a number of cases relating to the subject, the commission indicated that it could not allow a charge against operating expense for extraordinary obsolescence or abandonment of property except in the event of actual loss proved. Though the companies contented themselves with showing only book loss, the commission was satisfied that actual loss was sustained in the disposal of streetcars and certain other property. It therefore allowed as an expense one-half of this actual loss amortized over a period of ten years.

The cost to the companies in settling paving obligations to the city under the terms of their franchises was allowed in full as an expense to be charged off over a period of ten years. This item, said the commission, is different from the losses represented by the retirement, since it requires the direct outlay of cash which can come only from fares paid.

On the other hand, the commission did not think the riders should be burdened with the cost of special track removal work done by the Minneapolis Company, which is a nonrecurring expense. The item was therefore disallowed. *Re St. Paul City R. Co. Docket No. A-5971-11, ATC Order No. 1488, ATC Docket No. 408, July 6, 1955; Re Minneapolis Street R. Co. Docket No. A-5972-9, ATC Order No. 1487, ATC Docket No. 409, July 6, 1955.*



Revenues Not to Be Used for Television System Construction

ACERTIFICATE of public convenience and necessity, authorizing a company to construct, operate, and maintain a community antenna television system was

granted by the Wyoming commission. The commission found that public convenience and necessity required such a system in isolated communities unable to

PROGRESS OF REGULATION

receive reception from distant television broadcasting stations.

A municipal ordinance granting a franchise to fix and collect rates and charges for community antenna television service was thought by the commission to encroach upon and usurp its regulatory powers. The commission itself had the duty to determine, fix, and approve just and reasonable rates and to prescribe and approve nondiscriminatory service rules and regulations to be charged and observed by public utilities.

The commission refused to allow the company to use any part of tariff revenues for the construction of the system, other than proper depreciation accruals or surplus. Utility customers, said the commission, pay rates for service rendered and not for the purpose of financing the cost of utility plant required to serve them.

The commission stated that if tariff revenues were allowed for construction purposes, the public interest would not be protected. The customers would become

investors in the company without any proprietary interest in its affairs. They would be required to pay rates that would allow the company to earn an income return on plant constructed with capital contributed by them, and ultimately to recover the cost thereof through annual depreciation charges to operating expense.

The commission noted that other concerns operating community antenna television systems had been authorized by it to collect contributions in aid of construction, and to use the same to finance the cost. It appeared to the commission that it would be advantageous for the company to adopt such a construction plan in view of its limited capitalization, the financial risk inherent in the operation, and the fact that most of the systems operating such a service had been constructed in the main out of subscriber contributions in some fixed amount. The commission, however, did not require the company to do so. *Re Rawlins Community Television Co. Docket No. 9294, October 5, 1955.*



Court Upholds Gas Company's Exemption from Zoning Ordinance

A STATE statute authorizing the state department of public utilities to grant exemptions to public utilities from town zoning regulations was upheld by the Massachusetts supreme court. A gas company's desire to use a parcel of land in a residence district for the purpose of erecting a gate house to reduce gas pressure occasioned the proceeding.

Scope of Court Review

At the outset the court pointed out that its review of administrative decisions is limited to questions of law where no constitutional question is presented. The gas company was then found to be a "public

service corporation" within the meaning of the statute permitting such corporations to petition the commission for exemption from zoning ordinances.

Public Welfare Consideration

The principal question in such a proceeding is whether the proposed site is reasonably necessary for the convenience and welfare of the public. This is a question of fact which the commission resolved in favor of the company.

The court noted that efforts were made by the town to show that the proposed location was not the most economic or efficient one, that no credible evidence was

PUBLIC UTILITIES FORTNIGHTLY

adduced of efforts to purchase more suitable sites, and that other sites were more available.

However, this testimony, if pertinent at all, was merely additional evidence bearing on the main question as to whether the proposed site was reasonably neces-

sary for the convenience or welfare of the public. When the commission resolved the question of fact as to where the gate house should be located, no further question remained for the court. *Town of Wenham v. Department of Public Utilities et al.* 127 NE2d 791.



Stockholders' Right to Arrearages Sustained by Court Ruling against Railroad Security Changes

THE United States district court has annulled an order of the Interstate Commerce Commission approving a plan for the modification of a railroad's capital structure. The primary objective of the plan was to eliminate the large dividend arrearages on the company's first preferred stock in order to make possible a declaration of dividends on its second preferred and common stocks. The first preferred stockholders brought this action to protect their interests.

Commission Jurisdiction

In its opinion the commission found jurisdictional facts sufficient, under § 20(b) of the Interstate Commerce Act, to enable it to consider and approve the plan. Such findings, however, are subject to court review, and the court decided in this instance that the commission's findings were erroneous.

Under the act, in order for the commission to take jurisdiction over the plan, there must be "large and continuing accumulations" of dividend arrearages. But, as a matter of fact, no arrearages had been allowed to accumulate by this railroad for a period of about fifteen years, though large arrearages did exist from accumulations during earlier years. Contrary to the commission's view, the court held that this did not constitute "continuing accumulations." These words, said the

court, mean "presently continuing to accumulate," or an accumulation that is being added to. They do not mean merely an accumulation that will continue for a long time, as the commission interpreted.

The interest of the public should be considered in passing upon a plan to modify a railroad's capital structure. Such interest, under the act, involves the avoidance of deterioration of service and interruption of employment which attend the threat of financial difficulties. Here, there was shown no deterioration of service and no interruption of employment. The physical and financial condition of the company appeared good. The fact, moreover, that about 75 per cent of the company's net earnings had been plowed back made the prospect of financial difficulties very remote.

The commission found that the proposed plan would enhance the marketability of the company's stock and increase its stability. The court said that neither of these considerations would justify the modification of the equity securities of a financially sound, efficiently equipped, and well-operated railroad, such as the one here concerned. It would be unconstitutional under the act, said the court, and violative of the "due process" clause for the commission to authorize the elimination of the arrearages on the stock of this company, thereby making possible immediate divi-

PROGRESS OF REGULATION

dends on subsequent stock, just to promote the interest of the public or of investors generally in the stability or enhanced value of the stock.

Commissioner Mahaffie, father of § 20(b) of the act, had dissented from the commission's opinion, saying in part: "The provisions of § 20(b) . . . are not to be lightly invoked; and a plan for the alteration of a carrier's securities should be approved only where a clear showing has been made that the paramount public interest will be so promoted as to justify overriding the objections of dissenting security holders."

Question of Voting Rights

The beneficial interest in a controlling number of shares of the railroad was owned by another railroad which had

earlier been ordered by the Interstate Commerce Commission to divest itself of the stock. In compliance with the order, the stock was placed in the hands of a trustee, though it remained registered in the name of the beneficial owner. The question arose whether such other railroad could vote the stock on the proposed plan before the commission. The commission ruled in the affirmative and was sustained by the court. While the beneficial owner could not lawfully participate in the control of the operations of a competing line, said the court, such stockholder was not precluded from voting its holdings on the plan for security modification since that right was an incident of the beneficial ownership of the stock and was not proscribed by the act. *Wood et al. v. United States et al.* 132 F Supp 586.



Court Upholds Commission Order against Bus Company Exceeding Its "Pleasure Tour" Authority

THE United States district court dismissed an action brought by a bus company to set aside an order of the Interstate Commerce Commission prohibiting the company from conducting certain carrier operations found to be outside the authority conferred by its certificate. The proceeding arose on the complaint of competing carriers.

The certificate authorized the company to conduct over irregular routes "round-trip sight-seeing or pleasure tours." On the basis of this authority, the company offered regular, expeditious round-trip transportation to beach resorts and race tracks, with stopovers lasting a number of hours at such destination points. The price of tickets consisted only of transportation charges.

Finding these operations unauthorized, the commission issued a cease and desist

order. In sustaining the commission, the court said the language of the company's certificate required something more than what the commission expressed as "bare expeditious transportation between two points," though it was conceded that "bare expeditious transportation between two points" could in some instances be deemed to constitute a pleasure tour.

In addition to requiring the company to cease the particular operations complained of, the commission also ordered it to refrain from conducting any other operations "of the character" of those here found to be unlawful. The company complained to the court that this latter requirement went beyond the scope of the case before the commission and placed the company in the position of having to assess the legality of its other carrier operations at the risk of contempt proceedings. The

PUBLIC UTILITIES FORTNIGHTLY

court considered this hardship slight, however, since the commission clearly explained the criteria of the tour service authorized in the company's certificate. Similar prohibited conduct in like situa-

tions, said the court, could properly be anticipated and enjoined along with the particular operations in issue in the case. *Bingler Vacation Tours, Inc. v. United States et al.* 132 F Supp 793.

Other Recent Rulings

Contract for Sales of Electricity. A contract providing for the sale of energy by an electric company to a municipal utility district was approved by the California commission with the understanding that if it appeared in a rate proceeding that losses were being incurred because of deliveries under the contract, such losses were not to be imposed upon the company's other electric customers. *Re Pacific Gas & E. Co. Decision No. 52086, Application No. 37129, October 18, 1955.*

Return for Telephone Company. The Delaware commission terminated a telephone rate case upon finding that existing rates were yielding a return of between 5.37 per cent and 5.8 per cent, believing that such a return falls within the zone of reasonableness permitted by law for a telephone company. *Re Diamond State Teleph. Co. Docket No. 100, Order No. 243, September 18, 1955.*

Mandamus Denied. The Oregon supreme court denied a writ of mandamus, which would have directed a company to render service as a railroad passenger common carrier in accordance with previous commission regulations rather than under a timetable, where a previous court case had enjoined the commissioner from attempting to suspend the operation of the timetable and an appeal was the proper remedy to resolve the issues raised. *Ore-*

gon ex rel. Heltzel v. Portland Traction Co. (1955) 287 P2d 202.

Port Groupings Upheld. In an action to set aside an order of the Interstate Commerce Commission, the district court of the United States sustained the commission's grouping of certain ports and localities for freight rate-making purposes as peculiarly a matter for its expert judgment, its order being properly founded on evidence and within the scope of applicable statutes. *Tampa Traffic Asso. et al. v. United States,* 132 F Supp 948.

Overhead Allowance Excluded. The Missouri commission excluded an allowance for general overheads from a telephone company's original cost rate base where there was no evidence that such overheads had been capitalized. *Missouri Pub. Service Commission v. Inland Teleph. Co. of Caledonia, Case No. 12,795, September 9, 1955.*

Return for Small Telephone Company. A small telephone company was authorized by the Wisconsin commission to increase its rates to a point that would afford a return of 6.6 per cent on a net book-value rate base, which return as well as the rate base were expressly declared to be fair and reasonable by the commission. *Re Bruce Teleph. Co. 2-U-4463, October 11, 1955.*



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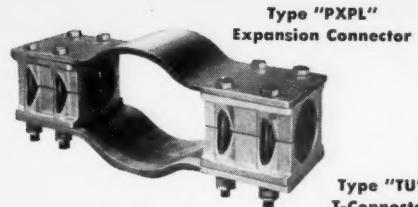
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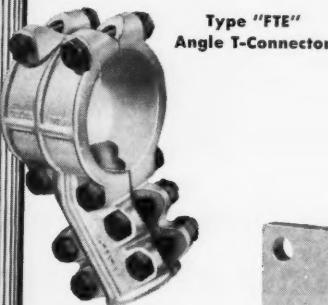


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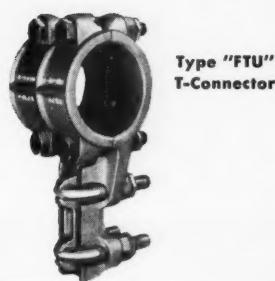
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T-Connector



Type "FTE"
Angle T-Connector



Type "SL"
Stud Connector

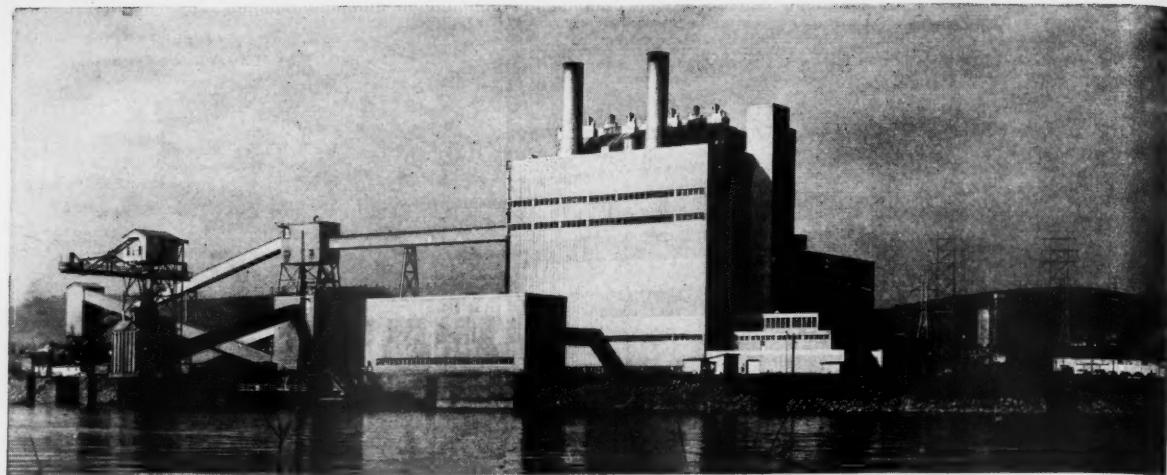


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Delta-Star Power Connectors Meet Rigid Service Requirements

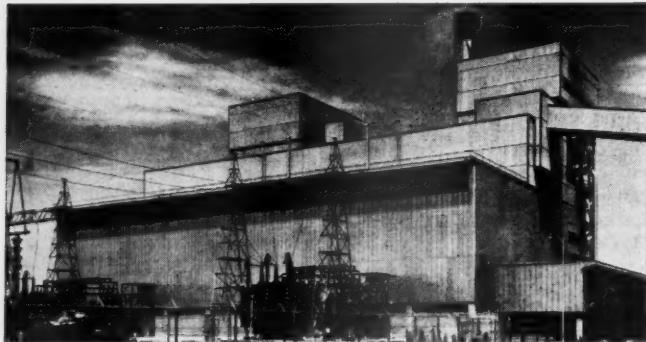
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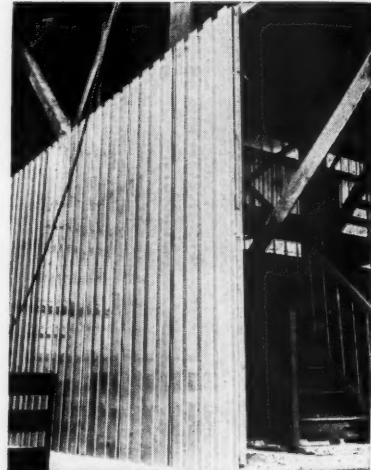


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Q-Panel walls grace the new Elrama Power Plant (above) near Pittsburgh. It was designed by Duquesne Light Company's Engineering and Construction Department. The Dravo Corporation was General Contractor.



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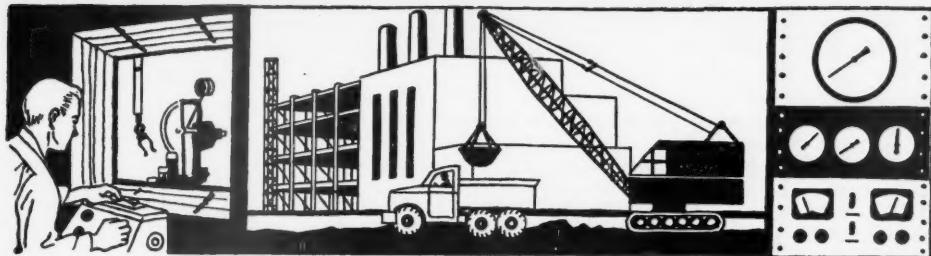
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PUBLIC UTILITIES FORTNIGHTLY—NOVEMBER 24, 1955



Industrial Progress

Commonwealth Edison To Spend \$600 Million On Expansion In 5 Years

COMMONWEALTH Edison Company, in the coming five years, plans to spend around \$600 million for plant expansion purposes. Earlier this year, the company estimated construction costs through 1958 would approximate \$420 million.

In the five years, 1955 through 1959, Willis Gale, chairman, said in a registration statement filed with the Securities and Exchange Commission, the company will spend about \$277 million for generating facilities and \$309 million for transmission and distribution facilities. Another \$14 million will be expended on the company's general plant.

Increased customer demands for electrical energy necessitated an expansion in Commonwealth Edison's early-year expansion estimates, Mr. Gale said.

Construction costs in 1955 and 1956 will run around \$120 million in each year while those of the following three years will amount to about \$135 million, \$125 million and \$100 million, respectively. From 1946 through 1954, Commonwealth Edison spent about \$758 million for expansion of its electric plant.

First Railway Gas Turbine Power Plant Demonstrated by Army Engineers

REPRESENTATIVES of government agencies and industry attended an Army Engineers demonstration of the first railway mounted gas turbine power plant at Fort Meade, Maryland, October 18th. The power plant is mounted on two railway cars. Built by Westinghouse Electric Corp. and delivered to the Corps of Engineers last summer it can be used on all American and most foreign railways.

Lieutenant General Sturgis, Army Chief of Engineers, said that the unit, only one of its kind, "could prove invaluable in support of military operations where conventional power sources are damaged or nonexistent." The power plant consists of a 5,000 kilowatt gas turbine power plant and transformer. The first railway car carries the gas turbine and generator. The second car holds the switchgear, electrical controls and a transformer capable of putting out 2,500 to 15,000 volts.

Westinghouse Awarded \$2,500,000 Generator Contract by Pennsylvania Power

WESTINGHOUSE Electric Corporation has been awarded a \$2,500,000 contract for a 113,000-kw turbine generator for Pennsylvania Power Company. The announcement was

made by Walter H. Sammis, president of the utility.

Mr. Sammis said that the delivery date for the generating unit has been scheduled for August, 1957 and will be installed as unit No. 4 in Pennsylvania Power Company's New Castle power plant.

Mr. Sammis said that the planned increase in generating capacity is necessary because of the growing demand for electrical energy in Pennsylvania Power Company's service area. During 1954, he said, 18 new industrial establishments were located in the company's service area, making a total of 218 such new firms which have been connected to the company's lines since World War II.

New home construction also is placing heavier demands on generating capacity, Mr. Sammis said. During the period 1948 to 1954 the number

(Continued on page 28)

Common and Preferred Dividend Notice

October 26, 1955

The Board of Directors of the Company has declared the following quarterly dividends, all payable on December 1, 1955, to stockholders of record at close of business November 4, 1955:

Security	Amount per Share
Preferred Stock, 5.50% First Preferred Series	\$1.37½
Preferred Stock, 5.00% Series	\$1.25
Preferred Stock, 4.75% Convertible Series	\$1.18½
Preferred Stock, 4.50% Convertible Series	\$1.12½
Common Stock	\$0.35

W. Sammis
Secretary

TEXAS EASTERN  Transmission Corporation
SHREVEPORT, LOUISIANA

INDUSTRIAL PROGRESS—(Continued)

of new homes connected to company lines was 10,981. While the number of new customers was increasing, the average use per customer jumped from 2,825 kilowatt-hours in 1953 to a record high of 3,033 kilowatt-hours during 1954, Mr. Sammis said.

\$22,000,000 Addition Planned By VEPCO

THE board of directors of the Virginia Electric and Power Company has authorized the construction of a \$22,000,000 addition to the company's

power station at Brevo Bluff on the James river.

The action was taken at a directors' meeting held in Portsmouth recently.

Work on the new 150,000 kilowatt generating unit will start immediately. It is scheduled for completion by May, 1958.

The new Brevo Bluff will be the same size as the first unit of the new station now being constructed by Vepco at Yorktown. Ground for the Yorktown station was broken last month and the station is scheduled to be completed in July, 1957.

This advertisement is neither an offer to sell nor a solicitation of offers to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

November 16, 1955

260,000 Shares Arizona Public Service Company Common Stock \$5 Par Value

Price \$22.75 per share

Copies of the Prospectus may be obtained from any of the several underwriters only in States in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

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One-fourth of All Plants Atomic by 1980

TWENTY-THREE per cent of all installed power generating capacity 25 years from now will be atomic, a General Electric Company nuclear engineer predicted recently.

Samuel Untermyer II, reactor designer in the company's Atomic Power Equipment Department, told the National Industrial Conference Board that atomic generating capacity will be doubled every four years between 1960 and 1980.

"The world atomic enterprise is doubling every two years, though it is still very small compared to conventional power production," the G-E engineer stated.

"This booming growth rate is due both to development in those countries which have atomic power and to atomic industry expanding into new countries," he said.

He pointed out that progress in the reactor development field has been so rapid that a recent \$200 million program for industrial atomic development has been dwarfed before it is well underway.

In this country, Mr. Untermyer reported, planned commercial reactors are scheduled to produce from 4 to 100 times greater output than reactors already being built. Abroad, he said, British scientists are projecting plans for a million kilowatts of atomic power even before their Calder Hall plant "makes its first kilowatt."

Mr. Untermyer predicted the number of different reactor designs will decrease as the atomic power output increases.

All reactor designers will have their opinions as to which reactor types will be preferred, he commented, but in the long run "operators of the plants and the public they serve will make the choice."

Two general types of reactors, he forecast, will make most of the atomic electric kilowatts in 1960. One is the heterogeneous water-cooled reactors, here and abroad, which will produce more than two-thirds of the power output of the world.

Among them, he explained, is one of the largest reactors yet planned, the G-E dual-cycle boiling reactor which will be built by G. E. for the Commonwealth Edison Company near Chicago, as well as the light and heavy pressurized water and boiling reactors here and abroad.

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INDUSTRIAL PROGRESS

(Continued)

Photos, Drawings Successfully Relayed Over Microwave First Time

MAPS, drawings, photographs and other symbolic matter which cannot be readily communicated in the form of teletype or verbal messages have been successfully relayed over microwave between Chicago and Houston, Texas, recently to demonstrate the feasibility of facsimile transmission over the same radio circuits that carry voice.

The facsimile demonstration took place over the private microwave system of the Texas Illinois Natural Gas Pipeline Company, a 12-channel Motorola system placed in service early in 1952. Results were said to be excellent. Experienced facsimile engineers reported the frequency response and differential phase characteristic of the microwave circuits were comparable to or exceeding the best wire circuits engineered and maintained expressly for commercial telephoto service.

In the facsimile process demonstrated, copy to be transmitted is wrapped around a rotating drum and is scanned by an optical system. Light reflected from the scanned copy varies with the density of the marking, and through a phototube the light variations are converted into varying voltage values. White portions of the copy give maximum output, while black delivers minimum output.

This direct current output then amplitude modulates a constant frequency oscillator operating at 2100 cycles per second. Standard voice circuit is adequate for high definition recording. The output of the facsimile transmitter is an audio frequency tone in which white is set at zero level, with black falling to about -30 db.

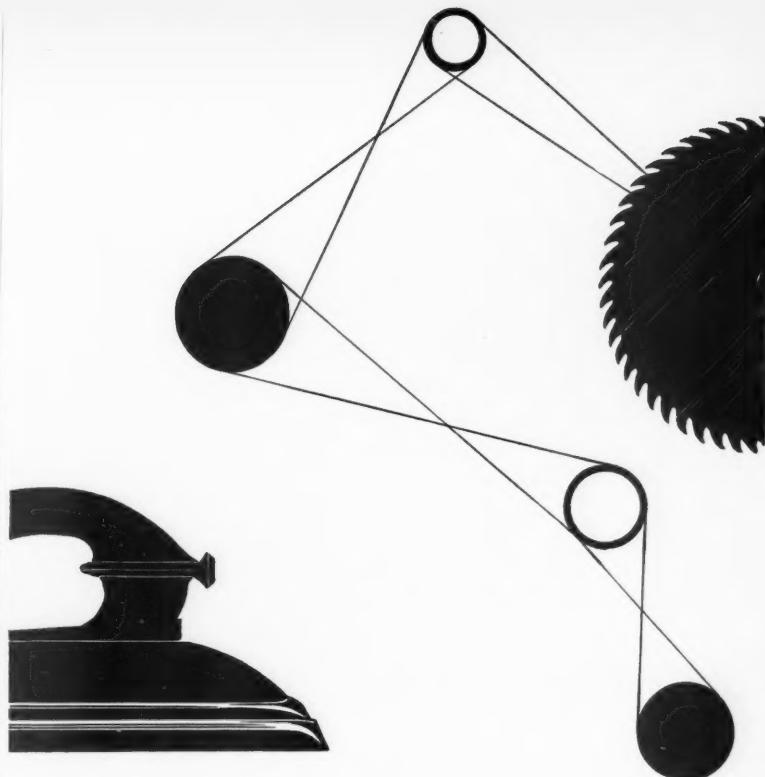
On reception the AM audio tone is demodulated to yield varying voltages which then are converted to varying light intensities for recording on photographic paper or film, or to variable current for electrolytic etching on chemically treated facsimile paper.

The transmitted signal is identical for telephoto or facsimile; the only difference is in the reception and recording. Telephoto, being a photographic process, requires chemical treatment in a darkroom to produce a print or a film negative. Facsimile requires no further processing after the electrolytic etching.

In the facsimile equipment tested, copy was scanned at a drum speed of 100 RPM, with definition of 100 lines to the inch. Consequently, facsimile

(Continued on page 30)

NOVEMBER 24, 1955—PUBLIC UTILITIES FORTNIGHTLY



UTILITY

means Useful

Public utilities are indeed well named—and through both expansion and research America's utility companies are making their service still *more useful*, in more ways, to more and more people all the time. Utility expansion and research require sound financing. It is in this connection that Guaranty Trust Company has demonstrated its own usefulness to the utility industry for many years.

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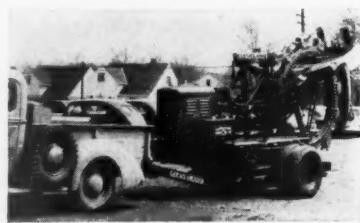


"Baby Digger" truck loads in close quarters - has big capacity, digs 10"-20" wide, down to 5' deep

This East Ohio Gas Company job, the replacement of a main extension, shows why the Cleveland Model 92 "Baby Digger" is so widely used for city digging. The "92" puts the edge of a trench within 17 inches of a parallel wall, loads excess spoil directly into trucks at the curb, and affords the operator full visibility of the whole job.

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INDUSTRIAL PROGRESS (Continued)

copy rolled off the recorders at the rate of one inch per minute, with 9 inch maximum line width. A 9 by 12 inch map can be sent thousands of miles and received ready for use at the distant point in only 12 minutes.

C. H. Wheeler Forms Atomic Energy Division

L. G. L. THOMAS, president of C. H. Wheeler Manufacturing Co., Philadelphia, Pa. has announced the formation of an Atomic Energy Division. Belden S. Tucker, formerly general sales manager of the Economy Pumps Division of C. H. Wheeler, has been appointed manager of sales to the Atomic Industry. Mr. Tucker represented the company at the Atoms for Peace Conference in Geneva.

The Atomic Energy Division of C. H. Wheeler is organized to provide engineering, design, development and manufacturing facilities for steam condensers and auxiliaries, heat exchangers, pumps and valves for atomic power generation. The firm is one of the early members of the Atomic Industrial Forum, Inc.

W. G. Lewis, F. T. Gifford Named To New A-C Posts

APPOINTMENT of William G. Lewis and Frank T. Gifford as manager of sales, circuit breakers, and chief engineer, circuit breakers, respectively, has been announced by J. F. Chipman, general manager of Allis-Chalmers Boston Works.

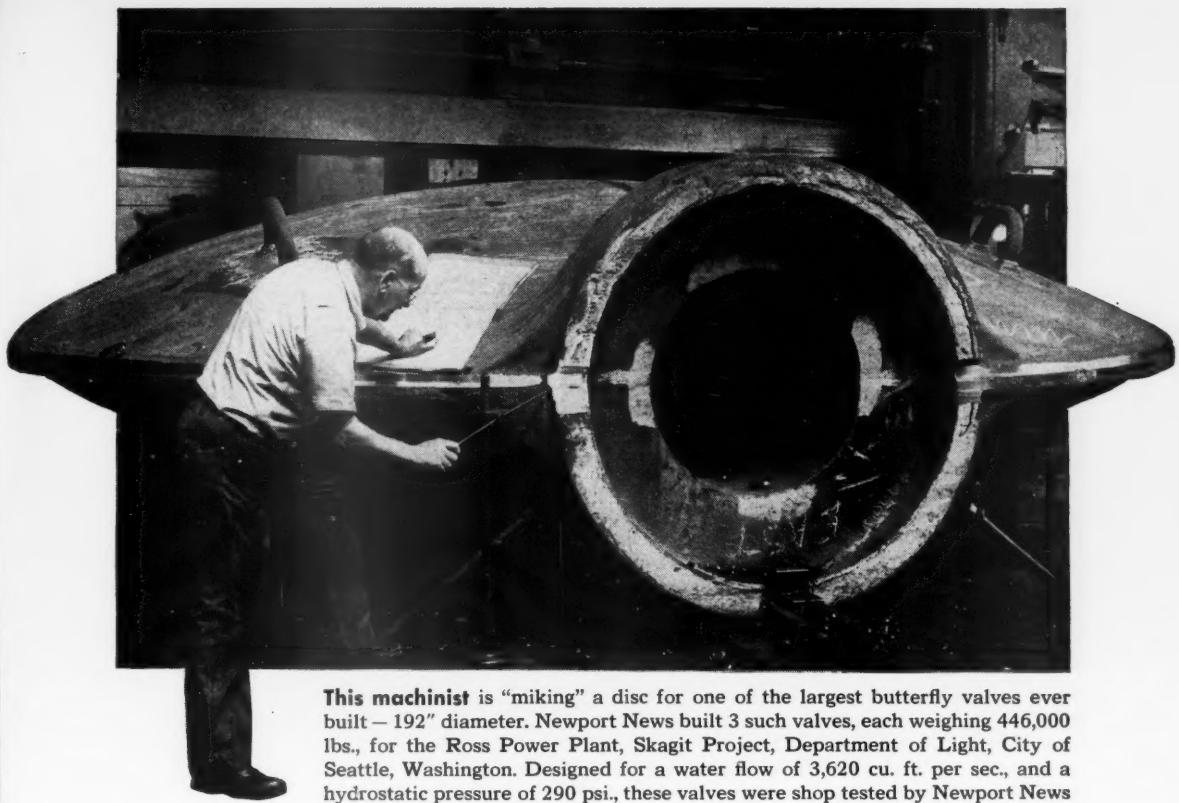
Mr. Lewis had been assistant manager of sales at Boston Works. Prior to that he had served successively as assistant engineer-in-charge of circuit breaker sales and assistant to the general manager.

Mr. Gifford had been assistant chief engineer of the switchgear department. He was an assistant division engineer for the company's large outdoor circuit breaker line from 1937 to January 1946 when he was appointed division engineer. In 1954 he was named engineer in charge of circuit breaker design.

"White Glove Clean" Theme of Spring Range Promotion

THE theme, "Electric Cooking is White Glove Clean," used last spring, will be repeated in the 1956 Coordinated Spring Range Promotion Program of the Edison Electric Institute.

(Continued on page 32)



This machinist is "miking" a disc for one of the largest butterfly valves ever built — 192" diameter. Newport News built 3 such valves, each weighing 446,000 lbs., for the Ross Power Plant, Skagit Project, Department of Light, City of Seattle, Washington. Designed for a water flow of 3,620 cu. ft. per sec., and a hydrostatic pressure of 290 psi., these valves were shop tested by Newport News at 450 psi. They are hydraulically operated with oil at 1,500 psi. pressure.

Birth of a **200-ton** Butterfly

This disc for a 16-foot butterfly valve reflects two basic advantages of Newport News fabrication ...

First, it exemplifies the *careful attention* Newport News craftsmen give to every detail. And secondly, it attests to the *quality* with which Newport News produces in massive equipment for public utilities and allied industries...due to Newport News' high integration of skill and production facilities.

Additional advantages accrue to customers from extensive work conducted in Newport News' testing laboratories on problems related to water power equipment.

Avail yourself of the engineering talent, along with the specialized production techniques and the skill of Newport News craftsmen operating vast steel fabricating shops, five huge machine shops, drop forging and die facilities along with acres of brass, iron and steel foundries.

Let us bid on equipment for your present or future projects. If you are not familiar with the way Newport News can help you, write for our illustrated booklet entitled "Water Power Equipment" ... it's yours for the asking.

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INDUSTRIAL PROGRESS—(Continued)

In making the announcement, Robert L. Coe, Chairman of the EEI Residential Promotion Committee and Residential Sales Manager of the Union Electric Company of Missouri pointed out that nearly one-third of the nation's estimated 65,000 major appliance dealers participated in the "White Glove" program last spring.

"This acceptance, along with the practically universal endorsement of the campaign from manufacturers, distributors and electric companies, encourages us to believe that participation will be even better during March, April and May of 1956," Coe said.

E. J. Hurley, Chairman of the EEI Range Subcommittee and Director of Residential and Rural Sales for The Detroit Edison Company, who was responsible for the preparation of the materials, said, "the White Glove theme provides a highly competitive and unusually effective way to sell electric cooking, and the new display kit, designed on this theme, makes a powerful sales aid."

The promotional kit contains a number of wall and window banners of varying sizes and shapes, adhesive-

backed "self salesmen" for the top and side of ranges, and top-of-the-range "tent cards" for use in store displays and model homes. Also included is a sample of a consumer leaflet which may be ordered for mass distribution.

Sample copies of the "White Glove" materials are being distributed to national publicity media, utilities, manufacturers and related organizations. Deadline for orders is December 16 with bulk shipments going to utilities on January 13.

J-M Handbook of Products

"JOHNS - MANVILLE Products Handbook," is a new 52-page publication featuring eleven lines of J-M products for industry — insulations and refractory products; transite asbestos-cement pipe; packings and gaskets; electrical products; celite diatomite filter aids and mineral fillers; celite diatomite catalyst carriers and metal raschig rings; J-M synthetic silicates; friction materials; pipe protection materials; floorings; and, roofing and sidings.

The handbook contains not only

product descriptions and essential engineering data but also a great deal of valuable related information.

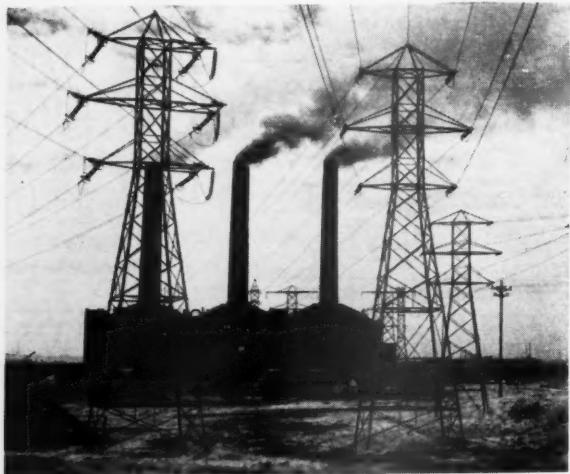
Copies of the handbook are available from Johns-Manville, 22 East 40th street, New York 16, New York.

F. M. Tait Suggests Household Engineering Course for Future Homemakers

YOUNG women in high schools and colleges should be taught a course in Household Engineering, is the belief of Frank M. Tait, chairman of the board of the Dayton Power and Light Company and of the Dayton Pump and Manufacturing Company.

Mr. Tait is of the opinion that a young woman's formal education in home economics does not properly equip her to enjoy the "automatic" home of 1955 and that the average homemaker of today often does not derive from an appliance all the benefits built into it by the manufacturer, because she never really gets acquainted with the appliance.

(Continued on page 34)



American Appraisals of reproduction cost may affect rates

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To postpone a heavy utility investment in transmission line construction, the Iowa Electric Light & Power

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This unit will function as a supplementary power source—improving service on an extended transmission system.

This is one of many applications of Electro-Mobile power in electric utility service.

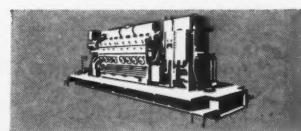
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INDUSTRIAL PROGRESS—(Continued)

Mr. Tait thinks schools should teach the prospective bride how each appliance works and what it is capable of doing. He suggested some study be given waste disposers, water softeners, irons, automatic dish and laundry washers, automatic space heating units, laundry driers, carpet sweepers, de-humidifiers, air conditioners, water heaters, incinerators, and other modern "necessities." He said a homemaker should also be taught simple rules for keeping appliances in good working order. She should know what she can safely do,

herself, in the way of maintenance and repairs—and what should be done by a professional service man.

Fifty years ago, Mr. Tait originated the "cooking schools" now promoted almost universally by utility companies.

New "Sur-Grip" Steel Stamps Introduced

"SUR-GRIP" is the designation assigned to a new development in steel handstamping, as introduced by Jas. H. Matthews & Co., 3864 Forbes

street, Pittsburgh 13, Pa.

Used on the popular series of Matthews' Pittsburgh Bevel Stamps, "SUR-GRIP" is produced by the addition of specially engineered, precise serrations running horizontally across the two sides of the stamps held between the thumb and fingers during the marking operation. The "SUR-GRIP" feature correctly positions the fingers at their best points for stress-free, secure holding. Controlled, even-depth marking is made easier, because of the added feeling of security to the user that the stamp cannot slip or fly out of his hand during the marking impact. "SUR-GRIP" Stamps, made from properly selected tool steels, also include the "Safe-Hed," which prevents mushrooming of the stamp head due to hammer blows.

For complete information and specially prepared literature on "SUR-GRIP" Steel Stamps, write Jas. H. Matthews & Co., 3864 Forbes Street, Pittsburgh 13, Pa.

NIPSCO to Construct New Office Building Additions

NORTHERN Indiana Public Service Company will construct a new, one-million dollar, five-floor general office building addition in downtown Hammond early next year, Dean H. Mitchell, NIPSCO president, disclosed recently.

The new building addition is part of an extensive expansion and modernization program now in progress by the company throughout northern Indiana.

Holan Issues Bulletin on Series 7000

A FOUR-PAGE descriptive bulletin on Series 7000 Construction and General Purpose Bodies has just been published by the manufacturer, J. H. Holan Corporation, 4100 West 150th street, Cleveland 11, Ohio.

The new bulletin gives complete dimensional data and standard and optional features. Also described is the Holan Design Selection Plan which enables buyers to order bodies to best suit their budgets and their needs.

Holan Series 7000 Bodies are available from Cleveland and from the other three Holan plants: Holan Thrift Line Corporation, Griffin, Ga.; the Phoenix Division, Phoenix, Arizona; and Brantford-Holan Limited, Brantford, Ontario.

(Continued on page 36)

This advertisement is neither an offer to sell nor a solicitation of offers to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

November 2, 1955

1,110,307 Shares

Commonwealth Edison Company

Common Stock

(Par Value \$25 per Share)

Holders of the Company's outstanding Common Stock are being offered the right to subscribe at \$37.50 per share for the above shares at the rate of one share for each fifteen shares of Common Stock held of record on November 1, 1955. Subscription Warrants will expire at 2:30 P.M. Central Standard Time, on November 16, 1955.

The several Underwriters have agreed, subject to certain conditions, to purchase any unsubscribed shares and, both during and following the subscription period, may offer shares of Common Stock as set forth in the Prospectus.

Copies of the Prospectus may be obtained from any of the several underwriters, including the undersigned, only in States in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

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INDUSTRIAL PROGRESS—(Continued)

Bulletin On "Automatic Routines for Commercial Installations"

A SYSTEM for the automatic programming of Univac, Remington Rand's electronic computing system, is outlined in a new 8-page booklet entitled "Automatic Routines for Commercial Installations." The publication contains a paper by Mary K. Hawes, supervisor of commercial programming for the Remington Rand Univac Division, delivered at a recent national meeting of the Association for Computing Machinery.

Mrs. Hawes centers her attention on B-zero, a general-purpose commercial compiler specifically designed for business rather than mathematical or engineering application. She describes the operation of the B-zero compiler in detail, emphasizing its use of ordinary English words instead of the three-digit and single-digit pseudo-codes used by the mathematician or engineer.

Copies of this booklet (EL-280) may be obtained from all Remington Rand sales offices or from Remington Rand Univac Division, Sperry Rand

Corp., 315 Fourth ave., New York 10, New York.

A Guide to the Selection Of Mobile Radio Units

MOTOROLA has released a new, two-color, four-page catalog on its recently announced TWIN-V line of mobile two-way radio units. Providing a guide to the various factors to be considered in selecting equipment—available frequencies, types of power supplies, types of mounting and transmitter power outputs—it should be a valuable aid to those seeking basic descriptive information on mobile units. Included is a detailed listing of ten features which help assure the radio user of optimum performance. Among these are interchangeability in mixed fleets of 6 and 12 volt cars, transmitter deviation limiting, ease of maintenance and availability of nation-wide service facilities.

A copy of Bulletin E-131 is available from Motorola Communications & Electronics, Inc., Technical Information Center, 4501 Augusta blvd., Chicago 51, Ill.

Catalog of Hubbard Products

THE hundreds of products made by Hubbard and Company are described and illustrated in a large new catalog, just published.

Standard pole line hardware and electrical specialties for communication line and power line construction are covered, and are carefully indexed. One section is devoted to aluminum street lighting standards and accessories, made by Hubbard Aluminum Products Company, a subsidiary.

Tables of weights, measures, and material properties are included in the catalog, which contains 260 pages, with an embossed cover. Copies of the booklet may be obtained from Hubbard and Company, 6301 Butler street, Pittsburgh 1, Pa., or its nearest distributor.

Cory Corp. & Mitchell Mfg. Merge

MERGING of two major Chicago appliance firms into what is said to be the world's largest manufacturer of room and packaged air conditioning equipment was revealed recently when J. W. Alsdorf, president, the Cory Corporation, announced his publicly-owned firm has purchased all capital stock of The Mitchell Manufacturing Company, headed by B. A. Mitchell, president.

The Mitchell company will continue to operate as it has in the past, but as a wholly-owned subsidiary of Cory, Mr. Alsdorf said. He emphasized that it will operate as an independent division of Cory and will be competitive with Cory's Fresh'n'd Aire division which makes air treatment appliances of all types, including air conditioners.

Chicago Regional Port District —linking America's great inland waterways for world shipping

The Chicago Regional Port is the key connection between the midwest's Lake-to-Gulf waterway network and the Great Lakes, Saint Lawrence seaway and Atlantic ocean. Its development will open the way to vast international shipping volume.

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The bond proceeds are being used to build docks, grain elevators, transit sheds, warehouses and other modern requirements of a great world port. The bonds are well supported by contractual rental income; leases already have been executed on the grain elevators and transit sheds.

Send for Official Statement describing Chicago Regional Port District 4% Revenue Bonds, due July 1, 1995, and for our tax chart which indicates the taxable return you will need to equal the tax-exempt yield of these bonds.

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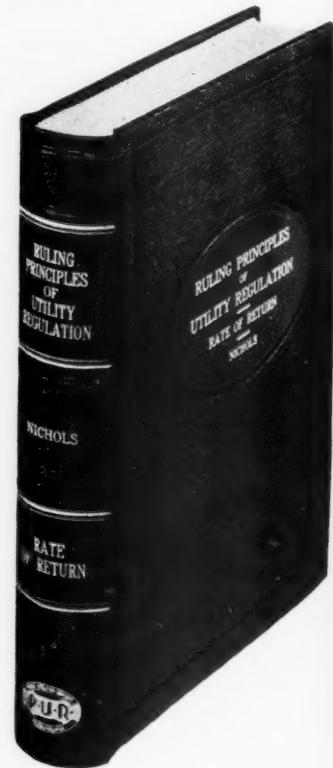
ONE of the most important subjects, if not *the most important subject*, constantly confronting utility managements, regulatory commissions and others concerned, is *the amount of return to be allowed public utility companies and how best to determine that return*. After almost four years of research, study, and analysis, Ellsworth Nichols, Editor of PUBLIC UTILITIES REPORTS and author of other publications on regulation, has completed his new volume, *"Rate of Return."*

Throughout the work, emphasis is placed on the *ruling principles of courts and commissions* concerning the *various factors to be considered, the weight to be accorded such factors, and illustrations of the application of the principles discussed.*

The volume contains 25 chapters, each dealing with an important phase of the subject—

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Economic Conditions Affecting Capital Cost

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An important aspect of this editorial achievement is Mr. Nichols' review of more than a thousand decisions on "Rate of Return," contained in over two hundred volumes of Public Utilities Reports. This extensive mass of material, together with related materials from other sources, have been condensed into 500 pages under a single cover and constitute the *most authoritative and comprehensive treatment of the subject ever published.*

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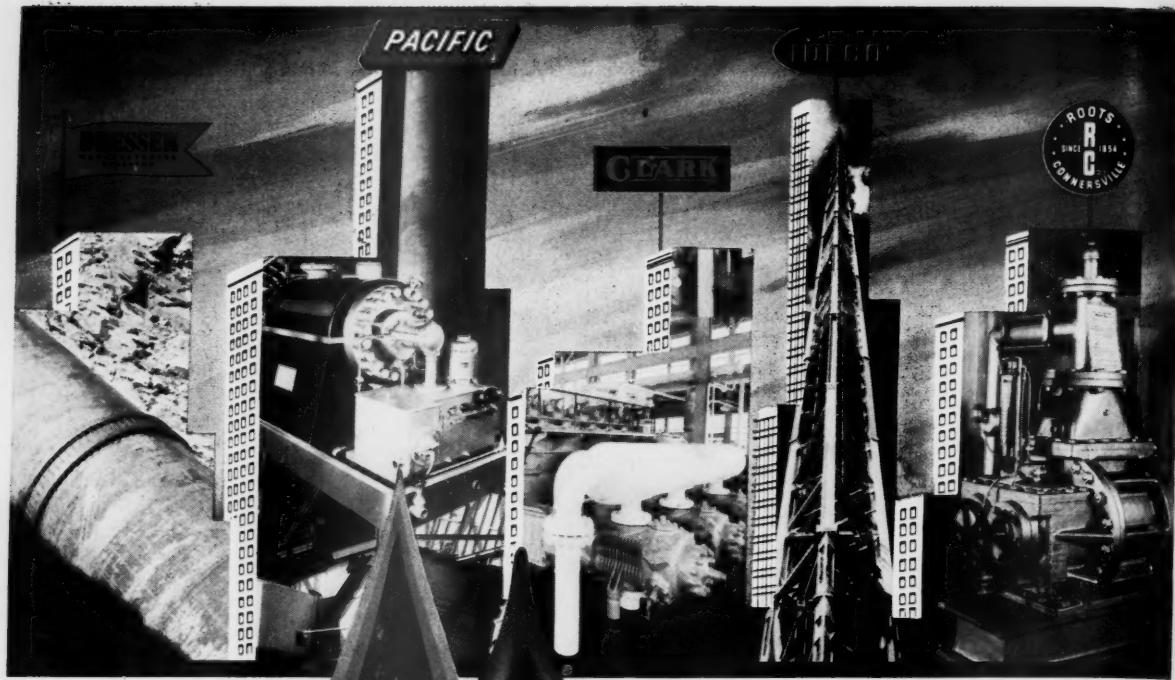
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